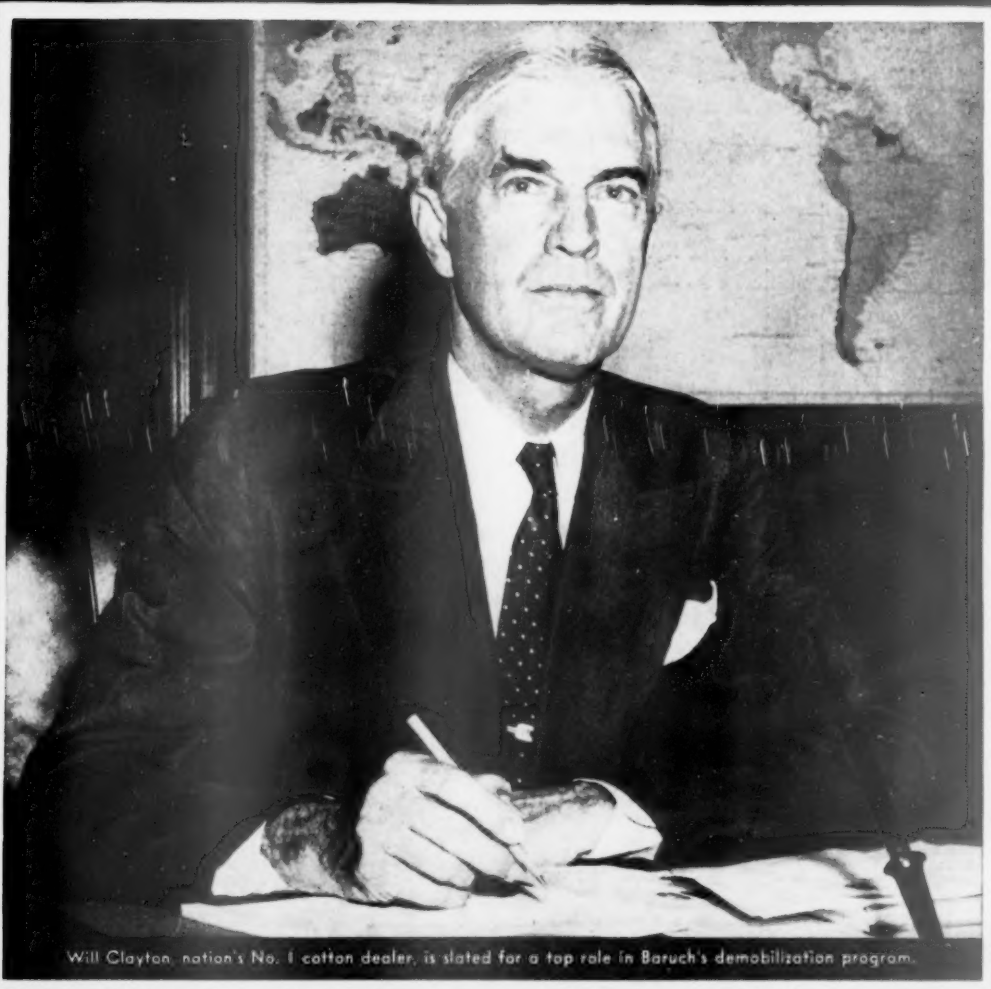


BUSINESS WEEK

WEEK
AGO

YEAR
AGO

START
OF WAR
1939



Will Clayton, nation's No. 1 cotton dealer, is slated for a top role in Baruch's demobilization program.

BUSINESS
WEEK
DEX

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How a Liberty Ship Keeps its Bearings!



Lubricating oil and oil film are shown in red in the picture above.

ON PERILOUS wartime voyages, mariners can't take chances on lubricating oils. Failure of a vital bearing might leave a ship dead in the water—easy prey to submarines.

That's why today, the bearings of hundreds of U. S. Liberty Ships are protected by special Socony-Vacuum Oils.

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TO HELP MAINTAIN
CAPACITY PRODUCTION
CALL IN

**SOCONY-
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for Correct Lubrication





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War on Cartels

Attorney General Francis Biddle has stepped into the discussion of the cartel with a program which will make easier for State and Justice departments to agree, when the time comes, with the U. S. government to formulate an official cartel policy.

In his speech to the Harvard Law School Alumni Assn., Biddle publicly modified the death-sentence policy which the Justice Dept. had been following on cartels.

He outlined a six-point program which, in essence, proposes to resort only to publicity in attempting to regulate cartels so long as markets abroad are not open for U. S. traders.

Biddle was speaking for himself, but reflected the ideas of the State Dept., which believes that the extermination of cartels is impracticable.

Fear of Closed Markets

One inspiration for Biddle's speech, indicating an easier policy on cartels, is the fear of both Justice and State departments that American commerce might be partially shut out of the European postwar market by renewal of the "Düsseldorf" cartel agreements that existed between British and German manufacturers.

A strong clique in the Federation of British Industries in the United Kingdom favors the renewal. Biddle said that "We know that British firms have given private commitments to German cartels to restore markets to them."

Curb on German Competition

Two points in the Biddle cartel program are aimed at spiking a resurgence of German industrial strength:

The fruits of Axis research during the past ten years should be made available to the industry of the world.

German industry should not be allowed to retain the domination over European industry which it has acquired during the war.

Biddle's four other points:

Private agreements concerning the foreign trade or commerce of this country should, with the exception of trade secrets, be made public.

The U. S. should support programs that will assist the thawing out of productive capacity which is no longer economically useful.

We should explore the possibilities of creating a forum in which consumers may present complaints against paying monopoly prices set abroad.

The U. S. government should assist its producers, if necessary, to gain access to foreign markets.

The British government has made a concession to what it considers anti-cartel opinion here by disavowing the old rubber and sugar agreement in favor of a scheme for economic consultation among governments.

But formal U. S.-British conversations on cartels and postwar trade have not begun. Britain still clings to the tin cartel arrangement.

Adjustment Reserves O. K.

Renegotiation authorities are trying to reassure contractors who are afraid to show a reserve on their books for price adjustment refunds. The Joint Price Adjustment Board, representing the six procurement agencies that handle renegotiation, has just announced that its officers will not take such reserves into consideration directly or indirectly.

Price Policy Relief

The War Dept. is working on a new clause for long-term contracts to permit either the government or the contractor to ask for a reconsideration of price at any time after the first three or four months.

This will take some of the sting out of the Army's new close-pricing policy (page 22). It will especially help contractors who have quoted a price based on volume production and then are cut back to a fraction of the original order.

Many contracts already carry a clause permitting reconsideration of prices at stated times—quarterly or semiannually—but contractors have pointed out that cutbacks or sudden changes in the cost situation could give them a terrific mauling in the intervals between reconsideration dates.

Ships for Sale

The Maritime Commission is blocking out a plan for postwar disposal of surplus ships (BW—Feb. 12'44, p15), which it will take to Congress shortly.

Its present thinking is that a flat price for each class of ship should be fixed by law and that all U. S. citizens should be allowed to buy at the same price. The one big restriction would be that no buyer could use the ships so as to

compete with an established U. S. line.

To figure the selling price, the commission will suggest to Congress that it take the original cost—about \$2,000,000 in the case of a Liberty ship—and write it down by a more or less arbitrary amount, say 40%, representing the sum that is to be charged as the cost of wartime use. Once the price is set, it would not be cut, even if ships remained unsold.

To get a measure of how much operators might be willing to pay, the commission is soliciting proposals for acquisition of surplus ships for postwar operation between the U. S., and Holland and Belgium.

Civilian Goods Protest

Throwing its weight in with the Army and Navy, the Foreign Economic Administration is protesting strenuously against expanding production for U. S. civilians on the ground that the goods and facilities may be needed for the relief of Allied and conquered territories.

But the military doesn't operate on the theory that one good turn deserves another and has joined with claimants for the U. S. home front in battling down some of FEA's more ambitious programs.

Planning Bogs Down

Government planning for its own postwar activities is bogging down.

Some time ago, President Roosevelt directed federal agencies to begin working up postwar plans. The Budget Bureau followed up by instructing them to ask Congress for appropriations to set up planning staffs. But when the Budget Bureau itself asked Congress for funds to pay for processing these postwar planning budgets, it was turned down flat.

Now the special budgets are piling up while the Bureau refuses to submit them to Congress because it says it hasn't got the money.

Industry May Speak Up

Continuance of concerted action plans by industries after the war, foreseen by Chairman Donald M. Nelson of WPB (BW—Feb. 5'44, p5), is supported by Bernard M. Baruch's recommendation for strengthening WPB's



Don't let anyone give you a PT boat after the war. You'd go broke buying enough gasoline for her hungry engines. But right now, no price is too high to pay for added speed and power for our fighting PT crew.

How far could a "PT" go on an "A" ticket?

► A month's supply of "A" tickets would allow barely enough gasoline to warm up the three huge engines of one of these Jap-smashers. And it would have to be high octane gasoline to be of any use at all.

The point is that all our gasoline fighting machines—land, sea and air—require enormous quantities of high octane fuel. And that's why there's less gasoline in the U.S.A. for civilians—and less Ethyl fluid to raise its quality, in spite of stepped-up Ethyl production.

Every gallon of America's fighting gasoline contains Ethyl fluid.

Today, more and more Ethyl is going overseas. But someday—*after the war*—this high octane gasoline will stay home. Result: gasoline for automobiles, airplanes, trucks, buses and tractors of higher quality than Americans ever enjoyed before. Ultimately engines will be designed to

take full advantage of this gasoline.

In this post-war development, the Ethyl Corporation looks forward to playing a special part. Through its Detroit and San Bernardino laboratories, now busy with war work, we plan to work closely with automotive aviation, tractor and petroleum engineers—helping them to get the most from post-war gasoline and engines.

ETHYL CORPORATION

Manufacturer of Ethyl fluid, used by oil companies to improve the antiknock quality of aviation and motor gasoline

CHRYSLER BUILDING, NEW YORK CITY



erous industry advisory committees. Much urged that these committees be kept as going concerns to speak for industry on demobilization problems, particularly resumption of civilian production and surplus disposal. To make possible, he recommended giving full protection from the antitrust throughout the reconversion pe-

WPB will agree enthusiastically—officials are even talking with more realism of making the industries decide for themselves which shall be allowed back into civilian markets first. The Dept. of Justice will take the idea over with cautious hostility.

Sugar Investigation

Concerned about the present state of sugar supplies, Col. Bryan Houston, WPA's rationing chief, has appointed a five-man committee, headed by Ellsworth Bunker, president of National Sugar Refining Co., to investigate all phases of production and consumption. Bunker's group will delve into the present diversion of sugar to the production of alcohol-rubber, grapple with the question of whether it is better to take sugar away from consumers to make alcohol, or grain (which helps produce the meat which consumers ultimately eat).

Shipping Accidents Rise

Although the submarine has not been much of a menace to Allied merchant shipping in recent months, collisions and other marine casualties are taking a heavy toll. Convoy operations, radio blackouts, and removal of customary aids to navigation have jumped the accident rate to the point where such casualties account for more losses than enemy action.

Lumber Outlook Worse

Outlook for lumber supplies gets progressively worse (BW—Feb. 19'44, p9) as U. S. troops advance on the war fronts. It took 50 million board feet, for instance, to put Naples back in shape as a port, and most Allied victories have been in deserts or in jungles that don't grow forests.

One of the biggest consumers of lumber is truck construction, which requires one million board feet every

day. In the Sicily skirmish, the average life of a truck was 72 hours, but military men guess it might be only eight hours in a full-scale invasion of Europe.

More limitation orders on lumber are certain. None has been canceled except on teak, and that only because the Japanese grabbed all this valuable wood (landing decks on aircraft carriers) and forced the U. S. to turn to Douglas fir.

No Extra Butter

New York's Mayor Fiorello LaGuardia and U. S. citizens at large would be getting an extra pat of butter now if Food Administrator Marvin Jones and Price Administrator Chester Bowles had not been shoved into a corner by subordinates.

The butter was available—about 75,000,000 lb.—and the administrator wanted to oblige because of the mayor's nasty cracks about government hoarding, and because public opinion polls indicated that people are more peevish

about butter than any other rationed item.

The food rationing specialists insisted, however, that the butter should be held until next fall, when the supply situation will be bad. Chagrined, Jones and Bowles withheld an order that would have released 20,000,000 lb.

This was good news to the butter and dairy products trade, because it prefers to deal in fresh rather than in old butter when the spring season of high production is approaching.

Smugglers in Allied Net

As a result of the Anglo-American decision three weeks ago to clamp down on both Argentina and Spain, all Spain-bound ships have been forced to undergo rigid cargo examination at Gibraltar (BW—Feb. 5'44, p111).

Revealed in Washington now is the fact that nearly 100 alleged smugglers—merchant sailors trying to smuggle platinum and industrial diamonds for

Civilian Production Plans Progress

The Army and Navy are offering stiff resistance to WPB's new scheme of planning which would bring industries as close to reconversion as they could get, on paper, during the present period of enforced waiting on the outcome of the European invasion (BW—Feb. 5'44, p22).

The project was expected to get final clearance at a WPB staff meeting this week but is dragging under the weight of the military's opposition.

A committee of top WPB personnel has now been appointed to study the question and bring in a report. Chances are that this will be by no means acceptable to the military. Even those WPB officials who have heretofore deferred to the Army and Navy are beginning to feel that the services have pressed their advantage too far.

Increasingly, there is a strong feeling that the present moratorium on reconversion cannot be stretched to postpone all preparation for the day when the really big cutbacks start coming.

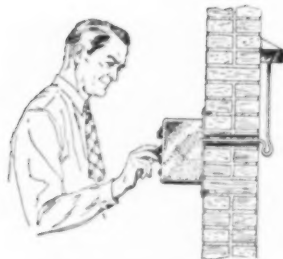
Civilian production is making some progress. WPB's re-examination of limitation and conservation orders, with an eye to seeing where—

in the light of improved materials supply—resubstitution is possible (BW—Dec. 11'43, p5), is now complete. Within the next few weeks, changes in 61 "L" orders and more than half-a-dozen "M" orders will be announced.

These will allow resubstitution of copper, steel, and aluminum in many important industrial uses. Examples: metal fixtures and reflectors for fluorescent lighting installations, steel cores for metal doors.

WPB's Office of Civilian Requirements received an allotment of 210,000 tons of steel for the second quarter of this year, as compared with an allotment of 165,000 tons in the first quarter. This time last year, Civilian Requirements was scraping along on only around 35,000 tons a quarter.

Part of the increase is simply because OCR is now scheduling production of some items formerly handled by WPB industry divisions. The rest will go principally to increasing the quantity, and quality, of essential civilian items already in production—more and better bed and furniture springs, galvanized kitchenware, safety razors, light bulbs, baby carriages, etc.



Now We Get Comfortable Heat EVERY Day

"I used to call Monday my 'complaint day'... No heat on the top floor... Too much heat on the ground floor... Did I think the building would ever heat up? ...

"But now we have a new system—the Webster Moderator System of Steam Heating. We get all the heat we need, automatically... And I don't even worry about fuel rationing!"

The Webster Moderator System of Steam Heating assures prompt heating-up, balanced distribution of steam and even room temperature throughout the building. Waste of valuable fuel through overheating is minimized.

More Heat with Less Fuel

Webster Engineers have found through surveys of thousands of buildings that seven out of ten buildings (many less than ten years old) can get up to 33 per cent more heat from the fuel consumed.

If you are interested in an economical, trouble-free heating system, write for our free booklet, "Performance Facts". It contains 268 case studies of modern steam heating installations and the great savings they are effecting.

WARREN WEBSTER & CO., Camden, N. J.
Pioneers of the Vacuum System of Steam Heating
Representatives in principal cities: Est. 1888



Shown is the small Control Cabinet of a Webster EH-10 Moderator System, central heat control of the pulsating flow type. It can be used to automatically operate a motorized valve in steam mains, or directly control burner or stoker of your boiler.



Making Boosters for
U.S. Army Ordnance

Webster
Steam Heating

Nazi purchase—have already been arrested.

So far the masters of the vessels have not been implicated, and no ships have been seized.

Easy Money on the Horses

War Food Administration officials suspect that race horses have been eating some of the subsidy hay the agency has been selling farmers in Maryland and Virginia this winter.

About 150,000 tons were sold at \$10 to \$13 a ton below cost to farmers in drought counties in Maryland, Virginia, West Virginia, Delaware, North Carolina, and Pennsylvania. The hay was intended for dairy cattle, but no check has been made on its consumption.

State governments may cash in on the federal subsidy through pari-mutuel turnstiles.

New Chain Letter Racket

A wartime version of the old chain letter racket is cropping up, using war stamps instead of dimes—and an appeal to the misguided patriotism of citizens as well as to the curse of mystic gods—as its incentives.

Some of the letter writers even assure their victims that the "postal authorities" have approved the scheme because it involves mailing war stamps, not money, to the man whose name heads the list.

The Post Office Dept., however, classes these letters along with other chain letters as violations of the lottery and frauds act. To break the chain, it uses the threat of barring participants from use of the mails.

Capital Gains (and Losses)

WPB has refuted reports that its new regulations governing industry advisory committees (BW—Feb. 5'44, p. 5) would bar committee members from attending many trade association meetings.

The Army and Navy finally let WPB go ahead with its plan for producing 2,000,000 electric flatirons (BW—Jan. 15'44, p. 104), but the program is held up because of the Navy's objections to release of a small amount of mica.

United Auto Workers (C.I.O.) is attacking joint War Food Administration-industry plans for a big promotion of "no point-low point" foods. U.A.W. claims it's just a scheme for throwing more business to bakers, macaroni makers, cereal manufacturers, and other processors of unrationed foods.

—Business Week's
Washington Bureau



A mean little Flu-bug is Enza,
So nasty that no one befriends her.
She'd pass on the flu
From cup lip to you
But the cup's made of paper,
that ends her!

AJAX
Paper Cups



AERO
Paper Cups



COLUMBIAN
Paper Cups



PEERLESS
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PACIFIC COAST ENVELOPE COMPANY
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Divisions of
**UNITED STATES
ENVELOPE CO.**
13 Plants from Coast to Coast

THE OUTLOOK

BUSINESS WEEK
FEBRUARY 26, 1944



Business this week had more insight into demobilization—both military and industrial—than at any time since the outbreak of the war. The operating plan for changeover from war to peace, as called for in the Baruch report (page 17), was beginning to take very tangible shape.

Will Clayton, Texas cotton merchant and recently Assistant Secretary of Commerce, has been put in charge of surplus disposal; **John Hancock**, investment banker and Baruch's right-hand man, continues as head of the Joint Contract Termination Board; **Gen. Frank T. Hines**, chief of the Veterans Administration, is to handle re-employment and rehabilitation.

These appointments, right on the heels of the Baruch report, tended to balk congressional efforts to keep the demobilization effort under the legislative branch rather than the executive; in other respects, there's little basic disagreement between the White House coterie and the Capitol Hill group.

Many questions on termination, demobilization, and reconversion remain to be answered, voluminous as is the Baruch report. To name a few that are most frequently asked by business men:

What about reconversion costs as a charge against war contracts?

Who is going to bear the brunt of dismissal pay when war work is canceled?

How will final amortization of war-plant facilities be handled?

There are a lot of business opportunities in the demobilization principles that have been evolved, even though many vexations also remain.

The Baruch group adds its voice to that of Donald M. Nelson in saying that **small companies should be permitted to reconvert before big ones.**

Reconversion will come first in centers that are not crowded with war orders and that have surplus manpower, of course, but there is a very important corollary: **The intention is definitely to pass by areas so swollen by war work that their present output is far larger than their postwar potential.**

Appropriate priorities will be granted more generally on urgently needed civilian goods in the future.

Small plants will get some special consideration in disposal of surpluses, but policy is, very positively, that no other action should be taken on sales of plant and equipment which might alter competitive positions.

Revisions now being made in a number of orders governing the use of metals point up the fact that **this is a period of improving products rather than of increasing over-all production.**

There's more attention given to maintenance of industrial equipment than to consumer goods. Even plants that have had all their war orders canceled will be held for the time being as standby facilities if they produce vital ordnance, because military demand might be revived by changes in the war.

However, the Baruch report advises the military services to work more closely with the War Production Board on cancellations and cutbacks. Idea is to let WPB know when the Army first begins to **think** that a certain cutback is coming. Then WPB would be able to prepare in advance the who, where, how, and how much of reconversion; the plan would be ready the moment the armed forces said, "Go."

Don't expect the new demobilization authorities to soften the military

THE OUTLOOK (Continued)

BUSINESS WEEK
FEBRUARY 26, 1944

policy of terminating war contracts the minute the need for the goods diminishes.

Even if the effect of cancellation may be extremely severe on industry and labor, Baruch says the cut should be clean: no continuation of production to let a contractor make extra money, none even to cushion the economy.

How much cutback at the end of the German war? Official viewpoint in WPB is maximum of 30%, minimum of 20% within a year if the event comes by Oct. 1.

That wouldn't mean a 20%-30% rise in civilian output; limits on this would be from 12%-15%. Reason: reduction in hours worked, return of women and oldsters and youngsters to other pursuits, some unemployment.

There are some in the high places, meanwhile, who say the cutback will be 50%-60% (BW—Jan. 29'44, p9).

Simultaneous statements by Roosevelt and Churchill that the German war may not be over this year raise once again two possibilities whose importance has been stressed over and over in these columns:

End of the German and Japanese wars may be much closer together than most of the planners have figured; most think this will intensify demobilization and reconversion pains (BW—Feb. 12'44, p9), but a few are now coming to take a more optimistic view (page 20).

Civilians, long left to live off inventories and scraps of production, may have to be given more attention. This would imply better—but tighter—planning of consumer goods production; it would mean almost certain rationing of clothing, possibly of milk and many other necessities.

Industry has been paring its inventory with an eye on the day of ultimate cancellation of war contracts. Inventories of wholesalers and retailers have been slashed—but not in accordance with any such well-laid plan.

Wholesale stocks have been regarded by economists as at rock-bottom for a long time. Retailers, however, carried big stocks in relation to sales throughout 1942. In 1943, the retail situation turned completely around, latest figures of the Dept. of Commerce show.

Retail inventories, which were well above 7 billions as recently as October, 1942, fell below 5.1 billions at the close of 1943. Meanwhile, volume of retail trade kept right on going up to hit the all-time high in December.

This sharp drop in inventories accompanied by higher sales simply reflects greatly increased velocity of retail turnover. Any business man knows what that means, and the average consumer will soon find out: more and **more empty shelves** with ever increasing frequency, more and **more maldistribution**, probably more and **severer rationing** if the German war does last beyond autumn.

Situation in beefsteak and pork chops isn't as black as it has been painted.

Jan. 1 livestock figures show beef cattle population up 4½% from the 1943 figure and almost 20% above the 1933-42 average; pigs were up 12% over '43 and 40% above the ten-year average.

Military and lend-lease will take 26% of 1944 beef and veal, but there still will be left **63 lb. for each civilian**—same as the prewar average consumption and 4 lb. per capita above 1943—say Dept. of Agriculture and War Food.

FIGURES OF THE WEEK

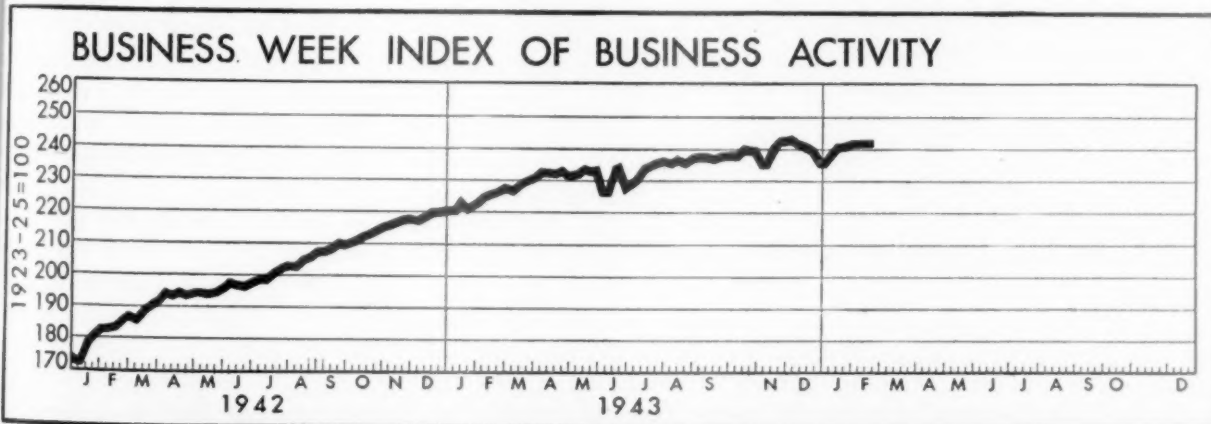
	\$ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
THE INDEX (see chart below).	*242.8	†242.8	241.9	237.0	227.3
PRODUCTION					
Steel Ingot Operations (% of capacity).....	97.7	97.7	96.5	99.4	97.7
Production of Automobiles and Trucks.....	17,885	17,595	18,000	19,820	17,830
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)....	\$5,125	\$5,373	\$6,805	\$6,731	\$13,315
Electric Power Output (million kilowatt-hours).....	4,512	4,533	4,532	4,265	3,949
Crude Oil (daily average, 1,000 bbls.).....	4,385	4,399	4,389	4,218	3,874
Bituminous Coal (daily average, 1,000 tons).....	2,158	†2,142	2,125	2,005	2,033
TRADE					
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars).....	78	79	76	81	76
All Other Carloadings (daily average, 1,000 cars).....	55	55	54	67	51
Money in Circulation (Wednesday series, millions).....	\$20,610	\$20,586	\$20,408	\$18,214	\$15,845
Department Store Sales (change from same week of preceding year).....	-21%	+2%	+4%	+4%	+45%
Business Failures (Dun & Bradstreet, number).....	25	22	23	54	96
PRICES (Average for the week)					
Spot Commodity Index (Moody's, Dec. 31, 1931 = 100).....	249.3	248.8	247.7	245.4	246.1
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)...	162.1	161.9	161.0	160.3	158.5
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)...	221.1	220.9	219.2	212.6	204.1
:Finished Steel Composite (Steel, ton).....	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
:Scrap Steel Composite (Iron Age, ton).....	\$19.17	\$19.17	\$19.17	\$19.17	\$19.17
:Copper (electrolytic, Connecticut Valley, lb.).....	12.00¢	12.00¢	12.00¢	12.00¢	12.00¢
:Wheat (No. 2, hard winter, Kansas City, bu.).....	\$1.63	\$1.63	\$1.63	\$1.39	\$1.37
:Sugar (raw, delivered New York, lb.).....	3.74¢	3.74¢	3.74¢	3.74¢	3.74¢
Cotton (middling, ten designated markets, lb.).....	20.93¢	20.80¢	20.50¢	20.24¢	20.89¢
:Wool Tops (New York, lb.).....	\$1.304	\$1.304	\$1.273	\$1.355	\$1.246
:Rubber (ribbed smoked sheets, New York, lb.).....	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢
FINANCE					
90 Stocks, Price Index (Standard & Poor's Corp.)....	93.8	93.5	94.3	93.2	85.5
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's).....	3.72%	3.72%	3.74%	3.82%	4.07%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's).....	2.73%	2.74%	2.73%	2.69%	2.77%
U. S. Bond Yield (average of all taxable issues due or callable after twelve years)...	2.32%	2.32%	2.34%	2.28%	2.32%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average).....	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate).....	‡-‡%	‡-‡%	‡-‡%	‡-‡%	‡-‡%
BANKING (Millions of dollars)					
Demand Deposits Adjusted, reporting member banks.....	31,509	31,702	34,862	34,311	30,620
Total Loans and Investments, reporting member banks.....	53,854	53,256	49,892	47,040	41,365
Commercial and Agricultural Loans, reporting member banks.....	6,446	6,393	6,349	5,740	6,081
Securities Loans, reporting member banks.....	3,012	2,693	2,022	1,373	963
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks..	39,139	38,902	36,352	34,574	28,424
Other Securities Held, reporting member banks.....	2,843	2,828	2,777	2,906	3,260
Excess Reserves, all member banks (Wednesday series).....	1,300	1,550	1,120	1,288	1,992
Total Federal Reserve Credit Outstanding (Wednesday series).....	11,961	11,511	12,419	8,586	6,214

* Preliminary, week ended February 19th.

† Revised.

‡ Ceiling fixed by government.

§ Date for "Latest Week" on each series on request.



A NEW RESOURCE HAS BEEN DEVELOPED

THE WEALTH of America has been wrought from her natural resources of fertile lands, wide forests and rich mineral deposits by the brains and muscles of her people.

But another resource is now available. A new source of wealth and well-being has been developing gradually and almost unnoticed which is tremendously important today and of still greater importance for tomorrow.

This new resource is the research laboratory.

Today, in hundreds of industrial and college laboratories, trained minds are expanding the world's knowledge, and applying the results of research to industry and to war.

In the Bell System, research has always been a fundamental activity.

The telephone was invented in a research laboratory. And for years Bell Telephone Laboratories has been the largest industrial laboratory in the world.

Underlying modern research is the realization of vast latent values in nature. Although the lone genius does from time to time bring to light some part of these hidden values, only organized scientific research can assure the thorough exploration that will render the full measure of use for human welfare.

Research means imagining and experimenting. It means the searching out and bringing together of facts. It means clear statements of problems, precise measurements and keen analysis. It means tenacious following along unexpected paths.



These are the procedures of research. Its consummation is the grasping by subtle minds of relationships in nature no one has previously known. And on the basis of the broader knowledge so established are built new materials, new methods and new structures to serve the people of America.

The Bell Telephone Laboratories has now concentrated its efforts on communication systems and equipment for the armed forces. When the war is over its researches in communication will again be applied to an ever-improving telephone service in America.

BELL TELEPHONE SYSTEM



Roosevelt Holds to His Line

President's blistering veto of tax and price-subsidy bills indicates he will continue fight for economic stabilization while Congress keeps an eye on own political fences.

President Roosevelt's stubborn insistence on holding the line of economic stabilization, reflected in his two blistering veto messages on the price-subsidy and tax bills, has widened the cleavage between the White House and Congress on home-front policies, and it will continue to widen despite—or perhaps because of—the approaching elections.

• **Support at Lowest Ebb**—At no time since he became President has Roosevelt had less support on Capitol Hill than he has today.

The expectation before Congress convened in January that Democratic majorities in the Senate and House would move closer to the President as elections approached has failed to materialize.

Republicans in both houses, meanwhile, have banded together to harass Roosevelt on virtually every home-front issue.

• **Reasons for Revolt**—There are two primary reasons for the refusal of the Democrats in Congress, who normally would drop personal grievances before a national election in the interests of a united front, to move in the direction many thought they would.

First, many Democrats in Congress are not in political agreement with the home-front policies of the President, although they may agree with him on his economics. They believe that only a minimum increase in taxes, higher farm prices, higher wages, and a general relaxation of wartime restrictions are good politics. The President does not.

• **Look to Own Fences**—Second, there are a lot of Democrats in Congress who privately believe and, in some instances, hope that Roosevelt will be defeated next November. As a result, they are more interested in keeping their own jobs than electing a President.

Their votes are primarily influenced by what the voters in their home states and districts want—not by what the President wants or what they may personally believe to be right.

Reaction of Congress to the President's veto of the tax bill, first tax veto in U. S. history, is ample evidence that the breach will not be healed.

• **No New Tax Bill**—Judging from the situation at midweek, Congress will re-

fuse to grant the President any tax bill this year which would yield anywhere near the size of the amount for which he has asked.

The fact that the President broke precedent to veto a bill which he contends will raise only one-tenth of the additional taxes needed to finance war operations and combat inflation was a sharp warning that the Chief Executive will go the limit for his economic stabilization drive.

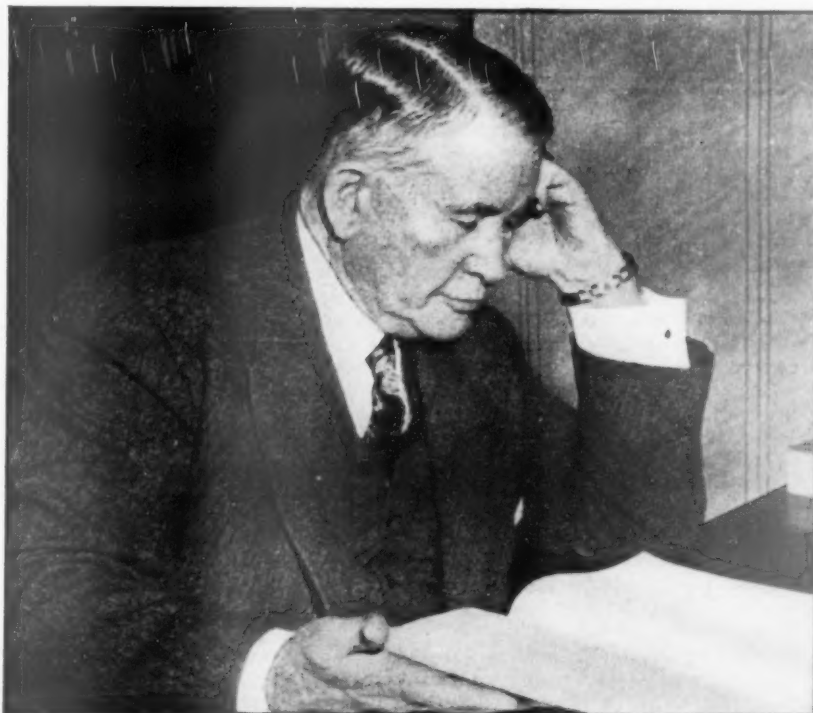
Labor leaders, farm bloc members, and other groups who have been seeking to "break the line" have privately hoped that as the election grew nearer, the President would decide to bend a

little. They have given up that hope now.

• **Congress' Strategy Upset**—The President has a decided advantage over Congress, as evidenced by the tide of the year-long battle over consumer food subsidies. Congress, in order to ban subsidies or otherwise break the stabilization line, must pass specific legislation. For years, it has avoided a presidential veto of legislation opposed by the Chief Executive by tacking it on to measures that the President couldn't afford to sacrifice.

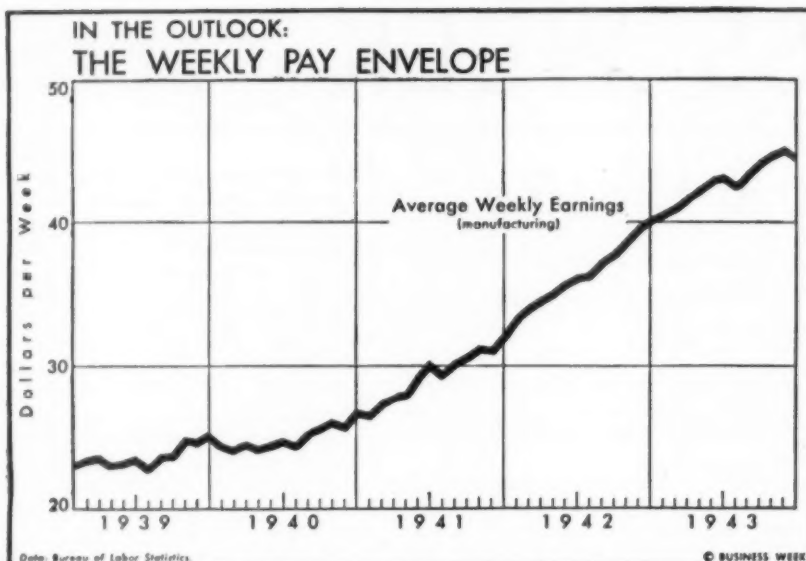
But Roosevelt rebelled against this practice. Twice he has vetoed measures which included provisions which he contended would break the stabilization line, despite the fact that such action threatened measures which he urgently needed.

• **Temporary Victory**—Most recent was his veto of the bill extending the life of the Commodity Credit Corp. The bill included the ban on all consumer food subsidies after June 30. With a blistering veto message, the President



Alben Barkley's reverberating denunciation of President Roosevelt's tax bill veto made the loudest political explosion of recent years. Barkley, the Administration wheelhorse and Democratic Senate leader since 1937, seldom swerved away from his

"Chief's" line, but this time the bitter veto message was too much to swallow. The upshot: submission of his resignation as Senate leader. Sen. Hattie Caraway (D.Ark.), only woman member, wept. Wallace White, Senate GOP leader, shook his hand.



Weekly wages are still going up, but the curve is tending to flatten out. The rise in 1941 was almost \$6 a week; in 1942, \$8. In early 1943, the rise was at the rate of \$6, and in the last six months, at one of less than \$4. Aside from increases in wage rates, average earnings have been lifted by longer hours of work and overtime premiums, by upgrading, incentive pay, and

shift differentials, and by increasing employment in high-wage war industries. All these factors are stabilizing as war work nears its expected peak. When the war ends and the manpower stringency ends, most of the nearly 100% gain in weekly pay will tend to be wiped out. So labor, looking ahead, is seeking to maintain earnings by boosting hourly wage rates.

shot the bill back to Congress within 24 hours, and his veto was upheld by a narrow margin in the House.

Because Congress is just as concerned, if not more so, in the continued life of a government agency which makes commodity loans, supports farm prices, and generally holds the farm market in its hands, it is now proceeding to extend the CCC without any restrictions on the subsidies designed to hold down food prices to consumers. It was a victory for the President, even though it may be temporary.

• **To Revive Subsidy Ban**—The subsidy issue will be revived soon when legislation to extend the price control act, which expires June 30, is considered. Farm bloc leaders warn that they will tack the beaten subsidy ban on the OPA measure. There is little doubt that they will succeed.

It would be more difficult for Roosevelt to veto the OPA bill than it was to disapprove the CCC measure. While Congress has no desire to wipe out price control entirely at this time, it would be a question of where the responsibility can be lodged in event the legislation should fail through a presidential veto.

• **Odds Favor President**—Odds still favor the President, and it would not

be at all surprising if after the long fight over the new price act is over, Congress would find itself in a spot where it would have to continue the existing law for another six months or so.

The price bill, which must go to the White House before June 30, is likely to carry so many provisions repugnant to the President that he will not hesitate to veto it.

• **Congress Shares Blame**—Congress is angry at the President for grabbing the postwar demobilization and conversion program (page 17) but will do little about it.

Congressional leaders privately admit that Congress is at least partly responsible. For 18 months, there have been sporadic attempts to get postwar legislation through Congress. They have all failed to make the progress necessary and complaints against the President's summary action were minimized.

• **Two Proposals Blocked**—Congress, however, has successfully stymied two of the President's proposals. His belated request for national service legislation isn't likely to get anywhere. Similarly, he will not get the type of federal ballot for service men for which so much Administration pressure was exerted.

Gifts to Uncle

U.S. gets \$5,000,000 in patriotic donations since Pearl Harbor, but the conscience fund payments drop to \$150,000.

Money gifts to the federal government total \$5,290,235.94 in the two years and two months since Pearl Harbor from about 50,000 men, women, and children with patriotic motives as distinct from those whose consciences hurt them for not having paid debts or income taxes.

• **Conscience Lag**—The conscience fund during that time has shown a steady decline in contributions. Only \$150,000 was received in the 26 months.

The U. S. Treasury is the only federal department authorized to receive gifts, but letters containing checks turn up often in the mail of the Collector of Internal Revenue and President Roosevelt. Some come addressed to "Uncle Sam."

Nearly \$60,000 has been sent in for the Office of Foreign Relief & Rehabilitation which Herbert H. Lehman, former governor of New York, heads.

The Treasury acknowledges all gifts, usually sending an engraved certificate to the donor. It keeps the letters in its Bookkeeping & Warrants Division files which are already bulging with letters from the conscience fund donors. Newspaper sob sisters call it "the room where the heartbeat of America can be heard."

• **Strange Gifts**—There have been many strange gifts. Whisky, sugar, rubber, foreign medals and coins, soap, a rug, refrigerators, 24,000 racing pigeons, crocheted work, and six tons of aluminum have been received.

The British government donated an eight-coach train—the "Coronation Scot" seen by thousands at the New York World's Fair and now used as quarters for transient officers of the Army Quartermaster Corps in Jeffersonville, Ind. The Navy and Army are using the pigeons on war fronts.

Contributors to the conscience fund lately have been mainly followers of Father Divine who send checks to pay off debts to people they can't find or have forgotten. They ask the government to acknowledge the amounts to Father Divine direct.

• **Pensions Returned**—Many persons are returning pension checks. A Greek sponge fisher in Tarpon Springs, Fla., sends a yearly money order for \$50 because his wife and children are held by the Germans. Employees of a California aircraft plant send \$1,000 a month. An American souvenir store in Mexico City pays 25% of its profits to the War Contributions fund—some \$200 a month.

Demobilization—Whose Job?

Baruch report follows same broad outlines as the George survey. The fundamental difference is whether Congress or the President shall seize the reins.

Official planning for the liquidation of the war program has reached the point where the big issue is not what shall be done but who shall do it.

The monumental report on war and postwar adjustment policies just completed by Bernard M. Baruch's postwar unit in the Office of War Mobilization lays out the Administration's program. The President's executive orders promptly setting up three new agencies in OWM put it partially into effect.

● **Shape Is Apparent**—The recent report of Sen. Walter F. George's postwar planning committee puts Congress also in the field with a plan of its own (BW-Feb. 19'44, p. 17).

By comparing the two programs, it now is possible to block out the general shape of the demobilization plan that will be adopted and to see the major points that still have to be threshed out.

● **Common Objective**—On most fundamental issues, the two reports are in striking agreement. Both George and Baruch were working toward the same general objective—in Baruch's phrase, "to close the books on the war" and get the government out of business as soon as possible after the shooting stops. Both realize that before the government can get out of business, it will have to help the economy through the period of reconversion and adjustment.

As a result, the specific recommendations of the two reports are much the same—liberal provisions for financing reconversion, quick settlement on canceled contracts, cautious disposition of surplus property.

● **Where They Differ**—The big disagreement is over the role that Congress shall play in the demobilization setup. George recommends the establishment of a central Office of Demobilization which would be responsible to Congress and would report regularly to a special congressional committee.

For the duration of the war, the Office of Demobilization would work under OWM. As soon as peace was established, it would become independent. At all times, it would follow the broad policies laid down by Congress and would work under close congressional supervision.

● **Opposed to New Agency**—Baruch agrees that Congress should lay down general policies. But he comes out flatly against creating a new central agency. Instead he recommends establishing

three new offices within OWM—a work director to handle the "human side" of demobilization, a permanent joint contract termination board, and a surplus property disposal director.

Congress' assignment in this plan would be to lay down general principles, pass enabling legislation, keep its hands off the administrative end of the program.

● **The Real Issue**—Although the Baruch report goes out of its way to take a stand against a separate Office of Demobilization, the real issue is not the creation of a central agency but whether Congress or the Executive is to take the responsibility—and the credit—for superintending that agency. By putting his three new demobilization offices under OWM, Baruch makes that the central agency. OWM was created by executive order, and it answers to the President rather than to Congress.

Even on this point, Baruch and George still are open to compromise. Although Baruch wants Congress to keep out of the administrative side of reconversion, he makes the suggestion tactfully, and he makes an express point of asking for legislative indorsement of his program.

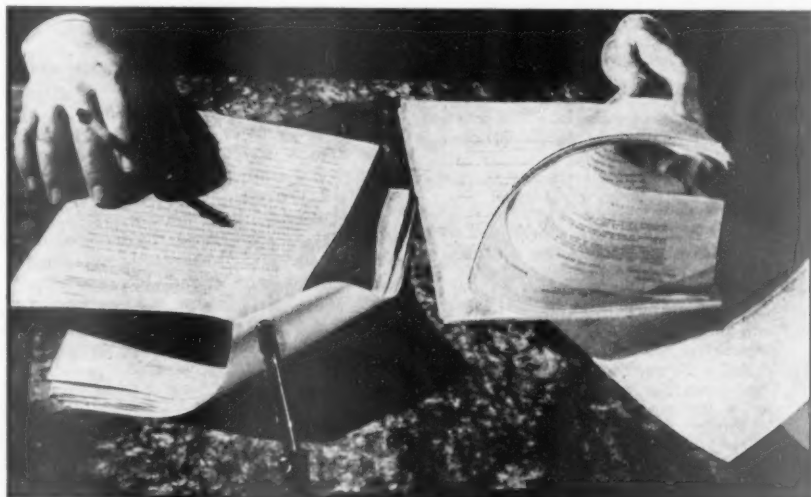
Following publication of the Baruch

report, George introduced a bill that would establish an Office of Demobilization responsible to a joint committee of Congress. George explained that it's not his idea that Congress should attempt to control the operations of the new office, but that it should act as a watchdog. As a practical matter, if Congress doesn't get its foot in now, it may never have the chance again. George himself says that if too much of the demobilization machinery is established by presidential decree, it will be very difficult for Congress to set up an agency by legislation.

● **Byrnes Will Be Boss**—If Congress lets Baruch's plan stand, War Mobilization Director James F. Byrnes will be the real demobilization director, at least for the time being. Under him, the three new agencies will do general planning and administration. Actual operations will be handled by existing agencies as much as possible.

William L. Clayton, now Assistant Secretary of Commerce (see cover), will step into the key job as head of the new Surplus War Property Administration. Advising him will be a board made up of representatives of the procurement agencies, the Reconstruction Finance Corp., WPB, Bureau of the Budget, the Food Administrator, the Attorney General, the Federal Works Agency, the State Dept., the Foreign Economic Administration, the Smaller War Plants Corp., and the Civil Aeronautics Board.

● **Who'll Do the Work**—The actual work of surplus disposal will fall to four agencies—consumer goods to the Treasury Procurement Division; plants, equip-



Bernard Baruch's three-part report on the host of problems incident to contract termination and the end of the war was released this week—131 mimeographed pages (above) totaling about 35,000 words. More will be is-

sued as individual aspects of the plan are refined. Requests for the "Baruch report" will be filled by the Office of War Mobilization, 323 Washington Bldg., Washington 25, D. C. Single copies are free.

BARUCH'S DEMOBILIZATION PROGRAM . . .

A. Human Side of Demobilization.

I. That the Government forces dealing with the human problems of demobilization be unified on two fronts—the Executive and Congress.

II. On the Executive side, creation in the Office of War Mobilization of the new post of "Work Director" to take care of the human side of demobilization.

III. This "Work Director" to be a man "of such outstanding caliber as to command the confidence of the country."

IV. This "Work Director" to work with Congress in the development of a combined program of legislation and operations.

V. Among the fields to be covered by this "Work Director"—personnel demobilization of the Armed Forces, developing adequate machinery for job placement of veterans and demobilized war workers; adequate care for returning veterans; physical and occupational therapy for wounded and disabled; resumption of education interrupted by war; vocational training; the special employment problems of great war industries, and others.

VI. That there be in each community only one place to which returning servicemen and servicewomen need to go to learn all their rights and how to get them.

B. Settlement of Terminated War Contracts.

I. To assure quick cash pending settlement, a complete "financial kit" is assembled including:

(a) Immediate payment—the full 100 percent—for all completed articles.

(b) On the uncompleted portion of the contract, immediate payment—the full 100 percent—of the Government's estimate of "factual" items, where proof ordinarily is simple, such as direct labor or materials, and of other items on which the Government is able to satisfy itself, up to 90 percent of the contractor's total estimated costs.

(c) Immediate payment—the full 100 percent—of settlements with subcontractors as soon as approved.

(d) Payment by the Government of interest on termination claims, until settled.

(e) As insurance against delays in validating claims, a new, simplified system of T (Termination) loans by local banks, with Government guarantees, to be available to all war contractors, primes and subs.

(f) For those unable to obtain such loans from their local banks in 30 days, the Government to make the loans directly.

(g) Until the new T loans are authorized by Congress, extension of V and VT loans to all eligible borrowers.

(h) Finally, for hardship cases, expedited settlements.

II. Quick, fair and final settlement through negotiation by contractors and procurement agencies.

III. As a more effective safeguard of public interest than the kind of review suggested by the Comptroller General:

(a) Review powers of Comptroller General limited to fraud with every administrative aid for detecting fraud.

(b) That all sizable settlements be made by Teams of negotiators.

(c) These Teams to file written reports and keep full records of the bases of settlement.

(d) Contractors to keep records for three years.

(e) That the Comptroller General and the Attorney General be added to the Joint Contract Termination Board.

(f) Further administrative safeguards now under study.

IV. Establishment on an operating basis of a Joint Contract Termination Board within the OWM, to unify procedures and policies of all agencies:

(a) The Board Chairman to be a civilian, independent of any of the procurement agencies, answerable to the Director of War Mobilization.

(b) This Chairman to require progress reports from all agencies and to report regularly to Congress.

(c) Also to maintain a running survey of the extent to which V and VT loans and the new T loans are taken out.

(d) To keep a constant eye on all aspects of contract settlement recommending any changes that become necessary.

(e) The War Production Board be added to the Joint Contract Board.

V. Spread acceptance by war contractors of the uniform Termination Article for fixed-price contracts.

VI. Speed the handling of subcontractor claims:

(a) The procurement agencies to be authorized by Legislation to protect subcontractors in event of insolvency or default of their customers.

(b) A standard termination article for subcontractors to be completed soon to supplement the Uniform Termination Article for prime contractors.

(c) A minimum figure to be set by the Director of War Mobilization below which "nuisance-sized" claims can be immediately validated with suitable safeguards.

(d) Vigorous experiment with the so-called "company-sized" type of settlement, seeking a workable plan.

VII. Schools to be set up around the country for training Government negotiators and contractor representatives.

VIII. Prompt clearance of Government property from private plants not later than 60 days after the filing of inventory lists, the manufacturers having the right to remove and store the property earlier at their own risks.

IX. This entire termination program to be put into effect at once to the extent administratively possible.

X. Prompt enactment of legislation to make this program fully effective, including authority to permit company-wide settlements, to extent found practicable.

C. Surplus Property.

I. The Director of War Mobilization to name a Surplus Property Administrator to handle every aspect of surplus disposal.

II. A Surplus Property Policy Board, the Administrator as Chairman with full and final authority, and with these agencies represented: War, Navy, Treasury,

Reconstruction Finance Corporation, Maritime Commission, War Production Board, Bureau of the Budget, the Food Administrator, the Attorney General, Federal Works Agency, State Department and Foreign Economic Administration.

III. Four major outlets to handle actual disposal, each in a clearly defined field, with no overlappings:

(a) Consumer Goods to the Treasury Procurement Division.

(b) Capital and Producer Goods, all types of industrial property, to a single corporation within the Reconstruction Finance Corporation, consolidating present RFC subsidiaries.

(c) Ships and Maritime Property to the Maritime Commission.

(d) Food to the Food Administrator.

IV. All agencies to follow policies laid down by the Administrator and the Policy Board.

V. The Surplus Administrator to report to Congress as soon as possible on legislation needed.

VI. Our own suggestions as to the broad policies that the Surplus Administrator may wish to follow are summed up in ten basic principles:

(a) Sell as much as he can as early as he can without unduly disrupting normal trade.

(b) Listen to pressure groups but act in the national interest.

(c) No sales, no rentals to speculators: none to promoters.

(d) Get fair market prices for the values with proceeds of all sales going to reduce the national debt.

(e) Sell with records open to public inspection.

(f) As far as practicable, use the same regular channels of trade that private business would in disposing of the particular properties.

(g) No Government operation of surplus war plants in competition with private industry.

(h) No monopoly; equal access to surpluses for all businesses; preference to local ownership, but no subsidizing of one part of the country against another.

(i) Scrap what must be scrapped but no deliberate destruction of useful property.

(j) Before selling surplus equipment abroad, assure America's own productive efficiency on which our high wages and high living standards rest.

VII. The Surplus Administrator to be a man of proven executive capacity, business sagacity, unquestioned integrity, and great courage to fight off interests who will try to exploit these surpluses.

VIII. The facts on all sales to be open to public inspection, with regular reports from each disposal agency to Congress.

IX. All of the disposal agencies to make effective use of Industry Advisory Committees.

X. The disposal agencies to lease as well as sell, to exchange properties, to sell on credit—but leasing must not become a hidden device for Government ownership or subsidies.

XI. The Army and the Navy to examine their inventories of the most critical civilian items to see what can be safely released during the war for civilian use.

... A SUMMARY OF RECOMMENDATIONS

XII. Surplus Administrator to study how to centralize the handling of real property, also, to explore the possibilities of liquidating Government holdings.

XIII. The closest cooperation between the War Production Board and the Surplus Administrator so that controls do not necessarily hinder disposition by unduly limiting potential buyers, particularly in assuring prompt disposal of small quantities of surplus materials.

XIV. The Surplus Administrator and the disposal agencies to have available to them in carrying out their policies the entire field force of all of the various agencies, including the Services.

XV. Surpluses to be offered in lots of such size as to permit businesses of all sizes to participate.

XVI. The Attorney General is placed on the Policy Board to prevent monopoly in disposal.

XVII. The Bureau of the Budget is on the Board to develop policy for permanent good housekeeping of Government properties.

XVIII. The membership of the Surplus Property Board to be made up of men who will carry out the decisions.

D. A general tightening of the entire Government war machine for both mobilization and demobilization—the two going hand in hand.

I. A running review of the functions of all war agencies by the Bureau of the Budget, reporting regularly to the Director of War Mobilization with recommendations for cutting down the agencies as their work dwindles.

II. Intensification of the work already being done in sweating out unnecessary requirements in Services' programs.

III. An early, equally effective review of the programs for raw material production, stockpiling, imports, subsidies and premiums to marginal producers so as not to continue any of these programs beyond being needed.

IV. Early review of all wartime material controls and limitation measures to determine under what conditions these orders can or should be modified.

V. Strengthening of the Industry Advisory Committees in the WPB.

VI. Tightened handling and advance planning of new contracts and contract cancellation.

VII. Closer working together of WPB and OPA to avoid pricing delays in the resumption of civilian production.

VIII. The Armed Services to furnish all civilian agencies full information in adequate time for these agencies to do their planning.

IX. The civilian agencies to organize to use this information effectively.

X. A running conspectus by the OWM of the tasks assigned each agency.

XI. No new demobilization agency needed at this time.

E. Advance Planning for "X Day."

I. To be prepared in event of a sudden collapse of Germany, the Armed Services and the WPB to cooperate in the preparation of an "X Day" Reconversion Plan based on the assumed defeat of Germany on a hypothetical "X Day."

II. This plan to seek to estimate cancellations in advance, to make tentative selections of the industries and plants to be freed, to be used to get a head start on all demobilization problems.

III. Advance listing of the priorities to be given different civilian needs in any opening up of civilian supply.

IV. The highest priority to go to those things which contribute directly or indirectly to improved military efficiency, such as vital repairs, transportation.

V. As far as possible, all competitors to be treated alike in the resumption of civilian production but not so as to interfere with war requirements or to hold back production of needed items.

VI. While this advance planning is being done, no let-up on the war.

F. Prompt Extension of Needed War Powers.

I. The price control law.

II. Priorities and allocations power on which functioning of WPB rests.

III. Requisitioning power of President.

IV. Attorney General to study other war powers of agencies to determine when they will expire, which can be allowed to elapse and which should be extended.

G. Tightened Handling of Cancellations.

I. Prompt cancellation of war contracts as soon as it is seen goods are no longer needed.

II. Procurement agencies to inform the WPB of possible cancellations or cutbacks as soon as possible.

III. The WPB to work out in advance the policies governing the choices as to which producers should be canceled and which left in production.

IV. The actual choices to be made after full consultation with the WPB, War Manpower Commission, and other interested agencies.

V. That contract cancellations be guided first by what will contribute to a more efficient prosecution of the war.

VI. With war needs satisfied, second by what will contribute to the quick balanced resumption of civilian production and to an orderly changeover from war to peace.

VII. Contract cancellation to be integrated with procurement and expansion of civilian production so that facilities and manpower which are released are shifted to new war work or, as far as practicable, to expanded civilian production.

VIII. A full, frank information policy on all cutbacks and cancellations.

H. Small Business.

I. That Surpluses be disposed of in small lots to permit small as well as large business to participate.

II. Similarly, the disposal agencies to be able to lease and to sell on credit, expanding opportunities for small business.

III. Effective representation of small business on Industry Advisory Committees.

IV. Protection of small business in the resumption of civilian production, as far as is practicable without interfering with war.

(a) Earlier cancellations where small business can be converted.

(b) Care to protect competitive position of small business.

(c) Possible relaxation of "nuisance" type production control sooner than broader controls.

V. Provision for special credit to assist small business in the changeover and to encourage new enterprises.

(a) Extension of the lending authority of the Smaller War Plants Corporation, at present restricted to purposes of war production, to cover financial assistance for changeover problems.

(b) Expansion and liberalization of the Federal Reserve System's authority to make industrial loans permitting one-half billion dollars of such loans outstanding at any one time.

(c) These two additional sources of credit to supplement—not compete with—the enormous volume of savings in the hands of individuals and banks which await tapping.

I. So that the loans made available can be repaid and to encourage new enterprises, a postwar tax law be drafted now, during the war, and put on a shelf for use at the end of the war.

I. This tax law to make known in advance the reductions in tax rates from the present wartime levels to normal peacetime levels.

II. That this tax law provide for reduction of the national debt—"to return to a strong position of national defense."

III. That this recommendation not be interpreted as meaning that present tax rates are too high for war—if anything they are too low—or that there should be an upward revision of our standards of fair wartime profits.

J. Public Works.

I. Early engineering, planning, and designing of public works to be put on the shelf for use if needed.

II. Any fund created to assist local bodies in such planning be administered with full recognition that the debt burden of many communities, cities, and states is far lower than the Federal Government's.

III. Immediately needed projects which have been deferred during the war to be kept under review by the WPB for possible clearance as war needs slacken, with due regard to the competing demands of other essential production.

Reconversion: Signposts on the Road Back

Postwar planners are taking another, soberer look at what they call Phase II—the interval which they expect will come between the end of the war in Europe and the final surrender of Japan.

● **Thornier Problems?**—Many now think that instead of being a comparatively comfortable tapering-off period, Phase II will confront them with problems even thornier than those that would accompany a simultaneous peace on all fronts.

Officials who think along this line are encouraged rather than worried by recent signs that suggest a shorter war in the Pacific and possibly a longer one in Europe than they had first expected. From their viewpoint, the shorter Phase II is, the easier it will be to get the economy back on a healthy peacetime footing.

● **They'll Have to Stick**—One thing that will make Phase II tough is the way war orders cut across traditional industrial lines. Industries that used to make a single product, or a group of related products, now divide their facilities among a dozen or more types of munitions. If Germany goes under and half of the orders of these industries are canceled, they still won't be free to start civilian production if the other munitions they

make still are needed for the Japanese war.

In aircraft, for example, about 21% of the production comes from the automotive industry. As long as the aircraft program is going full blast, the companies that account for that 21% will have to stick to their war job no matter how much slack there is in the production system as a whole.

● **Labor to Remain Tight**—Another cloud on the Phase II horizon is the manpower situation. Every statistician has his own idea on how much labor will be freed by cutbacks at the end of the German war, but most of them agree that until Japan surrenders there will be tight labor areas, local shortages, and trouble in specific industries.

This means that some plants might be barred from civilian production even when their floors are entirely clear of war work.

● **Refrigerators Are Typical**—The tangled problems of the refrigerator manufacturers are more or less typical of the sort of thing that planners will have to unravel if Phase II is a long affair. Only 20% of the refrigerator plants are located in easy labor areas. About 30% of the industry's production now goes into aircraft, about

15% into signal equipment, both programs that probably will keep going at full speed as long as the Pacific war is on.

Add to this the fact that fractional horsepower motors are painfully short, and the fact that refrigerator manufacturers make other important civilian articles which will require their share of manpower and facilities. The result is a problem that has given planners many a restless night.

● **Competitive Relationships**—Running through the whole reconversion situation is the baffling question of restoring or destroying peacetime competitive relationships. On this, the planners still have no definite answer.

WPB has been tinkering with the idea of assigning each manufacturer in an industry a quota for reconversion, based on his share of the prewar market. This would shut out newcomers, give companies that were still tied up on war work the chance to protect their brand names by farming out their quotas to a subcontractor. ● **Looks Good, But**—On paper, this scheme makes a strong appeal, but topside thinking is swinging away from it, fearing that too much restraint on competition would be an invitation to cartelization.

ment, industrial materials to the RFC, which is advised by Baruch to set up a consolidated subsidiary for the purpose; ships to the Maritime Commission; and food to the War Food Administration. If goods are sold abroad, FEA probably will handle the mechanics.

Although Baruch is cautious about prescribing exactly what should be done with surpluses, his general idea is that they should be treated as an asset, not as a liability. He also hammers hard the point that the ideal time to unload surpluses is during the war when the market is ravenous for goods.

● **Board Becomes Permanent**—Under the President's orders putting Baruch's suggestions into effect, the Joint Contract Termination Board, formerly a temporary agency in Baruch's postwar unit, now goes on a permanent basis. It will lay down policy, but the actual work of closing up contracts will be handled by settlement teams of the procurement agencies.

Representatives on the main board will include those of the Attorney General and WPB as well as the procurement agencies. John M. Hancock, Baruch's right-hand man and coauthor of

the report, will continue as chairman.

● **Hines to Head Branch**—The third member of Baruch's demobilization team will be Brig. Gen. Frank T. Hines, now head of the Veterans Administration. His new title is Director of Retraining & Re-employment, which suggests a somewhat narrower scope for the job than Baruch's original suggestion of "work director."

Specifically assigned to him are planning demobilization of soldiers in cooperation with the Army and Navy, setting up machinery for re-employment of veterans and displaced war workers, supervising rehabilitation of the disabled. Mrs. Anna Rosenberg, former adviser to the President, has been offered the job of first assistant to Hines.

● **Covers the Field**—Although much of Baruch's report concerns itself with the administrative machinery that is to be set up, some of his general recommendations fan out to cover the whole field of demobilization planning. One that will appeal to many business men is a plea for what Baruch labels "X-Day" planning—the construction of detailed blueprints for the changes that will be made in the war program when Germany

goes under and the war in Europe ends.

Another is the suggestion that a postwar tax bill be enacted now and put in cold storage for the day when the reconversion period arrives. This would enable business men to estimate the tax factor in their future incomes with certainty.

● **Agreed on Termination**—The only subject on which Baruch makes detailed suggestions is contract termination. His thinking here follows the same lines as the George report with one significant exception: Baruch still is wary of direct dealings between the government and subcontractors, while George favors them. Baruch specifically indorses, however, the Murray bill (now incorporated in George's new bill) which is designed to put George's program for contract termination into effect.

● **Baruch Can't Quit**—Having delivered his report, Baruch was willing to call a halt to his postwar advisory duties, but Byrnes held up a restraining hand. He offered the Retraining & Re-employment job to Baruch, but the latter turned it down. Byrnes still thinks, however, that he can find new tasks for Baruch in the near future.

Autos Get Ready

Manufacturers plan huge expenditures to breast demand for that postwar car. Space will be an early-stage problem.

The automobile industry is making plans for a lush retail market the first few years after the war (BW—Nov. 30, 1943, p. 19)—plans that will mean an outlay running into tens, if not hundreds, of millions of dollars. These plans have progressed far beyond the talk stage.

Capacities to Expand—General Motors expects to provide additional manufacturing facilities up to 25% to 50% beyond previous capacities; Packard will add 25% to capacity and have ready space for another 25% if necessary; Nash has its eye on a much larger share of the market than it formerly possessed; and Ford and Chrysler are thinking in terms of more production machinery.

The industry estimates that it has available 85% to 90% of the equipment needed to resume manufacture of 1942 models, with some minor changes.

Buying in Advance—Since some car makers know that certain of their facilities will be fully engaged in war work as long as the war with Japan continues, new equipment must be bought before the end of the war (on the theory that the go-ahead on car production will be given not later than the termination of the war with Germany).

Certain facts stand out: One company alone will proceed according to present plans with a program for acquiring some 25,000 or more machine tools of all kinds in the next two or three years; new induction heating furnaces will be installed by several automotive companies; big orders for presses for body work are in the making; considerable materials handling, welding, cleaning, drying, and painting equipment will be required for new assembly plants.

G.M.'s Plans—General Motors has a comprehensive program. Its plans go beyond provision for more capacity and into the realm of modernization.

Fisher Body probably will need two stamping plants; various divisions of the corporation will buy tens of thousands of machines: machine tools, welding apparatus, heat-treating furnaces, conveying equipment, etc.

To reduce costs, the corporation is thinking in terms of greater decentralization, may build three or four new branch assembly plants. Total outlay will be several hundred million dollars (BW—Nov. 27, 1943, p. 59).

Specialized Equipment—Automobile makers have in their plants tens of thou-

sands of government-owned machine tools. If these machines are to be available at the right price and at the right time, it is estimated that auto makers will buy from 10% to 20% of them. Much government equipment is highly specialized and not adaptable to automobile manufacturing.

To particularize, Chrysler has 19,277 government-owned machine tools in its plants, and wishes to purchase 3,000 to 4,000 of them. Packard has \$38,000,000 of Defense Plant Corp. machines in its Detroit plant, will buy not over 15% of them and probably less.

Replacement Needed—Not to be overlooked in the G.M. plans is the necessity for replacing 3,000 or more machine tools that have gone into war production outside the corporation and cannot be recovered (BW—Feb. 21, 1942, p. 15). In fact, General Motors cannot begin to make automobiles again until these machines are replaced. All companies are more or less in the same spot.

One important manufacturer is planning to buy 5,000 or more machine tools, of which a considerable proportion will be special-purpose machines.

Other Purchases—Packard will purchase at least \$3,500,000 of machine tools to duplicate many machines now owned for making Packard engines and other parts. That program may easily run much higher if the market proves as good as anticipated. Nash-Kelvinator also will invest in a substantial amount of new equipment.

Ford Motor Co. hasn't yet given even

a hint of its specific program, but if one can rely upon past performance, its purchases will be in the tens of millions of dollars.

They'll Need Space—Dies for 1942 models are still intact and have been zealously guarded. But the main task will be to get automobile plants cleared of munitions-making equipment—machinery, parts in process, raw materials. What automobile companies will need most is manufacturing space. If they can get that, the time for getting back into production of automobiles will be greatly shortened.

The first cars may come off the lines within three months after the go-ahead signal is given. But quantity manufacture won't be achieved for six months or longer. Some companies may be seriously delayed by war commitments and may be compelled to improvise ways of making parts and assembling cars on a temporary basis.

New Buildings Are Possible—Nash-Kelvinator is tied up in aviation work that will continue beyond the end of the war with Germany. It may be forced to erect buildings to house floor space for automobile and even refrigerator production.

Packard is in an even tighter fix. It has been informed that it will have to continue making Rolls-Royce Merlin engines on a huge scale long after the European phase of the war is over. In fact, it won't reach peak volume on these power plants until next April or May. All of Packard's plant facilities are fully



TANK CHIMNEY

Making its battle debut in the American conquest of the Marshall Islands is an exhaust stack adapter (above) that permits Army tanks to "wade" ashore. The attachment is a simple

but effective duct that discharges burned gases above water, keeping exhaust pipes clear when armored units rumble through the surf from landing ships. These ducts, produced by Carrier Corp., Syracuse, N. Y., make tanks look like crude submarines.

occupied. It must find a large amount of floor space in one spot if it is to get back into the competitive swim when civilian auto production is resumed.

● **A Juggling Problem**—General Motors has a serious problem. Heretofore a substantial percentage of Chevrolet sheet metal parts have been made at Fisher's mammoth Cleveland factory, but that entire plant plus war additions is engaged in making aircraft for the Pacific war, including a G.M.-designed fighting plane (BW—Aug. 28 '43, p. 87).

The corporation also has all four of its eastern assembly plants, now Eastern Aircraft, sewed up in fighting plane manufacture. The two body hardware plants in Detroit and Trenton, N. J., are on aircraft work. Some smart juggling around and building of new plants will be necessary to get things going again in a hurry.

● **Cars Will Be Smaller**—Some of the reports about cars being pulled down a few years from now into the bantam class because of tiny engines and high-

octane gas may be discounted. Cars will be smaller but space will be better utilized. Instead of weighing about 3,000 lb. each, they will weigh 2,000 lb. Lighter weights will be achieved by changed designs and use of tubular alloy steels. Ford will stick to low-alloy steel castings for many parts.

The industry believes that Washington will stipulate at first the number of cars it will be allowed to make. The number of cars assigned each company, it is believed, will be determined by the ratio of business previously done. If a company has several lines of cars, then it can decide how its quota is to be divided among its own lines.

Fear is expressed by one of the big companies that Washington may say that only the low-priced cars (Chevrolet, Ford, Plymouth) can be made in order to protect Packard, which will have great difficulty getting back into production because of its long-lived war job. The likelihood of such action, however, seems remote.

Closer Pricing

Army believes that it now has the data and experience which to base accurate estimates of all future contract costs.

In future contracts, the Army intends to pay more and more attention to pricing, a subject that was generally waived early in the war when the idea was to get production at any cost.

● **Data Available**—The Army Service Forces has decided that it now has enough cost data on hand and enough general experience under its belt to permit pretty accurate price estimating of its own.

ASF also is looking ahead to the time when its statutory authority to renegotiate contracts will expire. The Army never has admitted it officially, but many procurement officers have given many



SPEEDUP FOR SHIPS

Production of naval patrol vessels at Pullman-Standard's Chicago plant (BW—May 8 '43, p. 14) is speeded considerably by a worker's suggestion for quicker heat forming of ship plates. Previously, it took 48 to 72 hours for the job of bending each heated plate over a form by lowering a weight (left) on the upper edge and hammering the surface. Now it's done on the same form but by curved levers (above left) which draw the plate into shape when the weight is applied to them (above right). Two plates are finished daily by this new method which netted its suggester a \$700 award from the company.

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CAPITAL FUNDS . . . \$ 166,384,994.51
 DEPOSITS . . . 3,498,153,209.87
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facturers plenty of latitude on knowing that renegotiation would not cause any excess.

● **Safety Margin**—Under the new bill, renegotiation will end Dec. 1944, with six months' extension permitted, if the President orders it in anticipation, Lt. Gen. Breton Somervell, head of ASF, has ordered procurement officers to start placing all contracts for repeat and continuation orders at prices that can be exempted from renegotiation.

● **Subcontract Prices**—The approaching end of renegotiation also will make the Army pay more attention to the prices prime contractors pay their subcontractors.

ASF is putting the pressure on contractors to extend close pricing policies down through the whole network of subs and sub-subs. From a price standpoint, the work a contractor farms out is as important as what he does himself. A recent study—which gave statistical verification to a fact most procurement men knew already—showed that in 1943 51% of the prime contractor's dollar was passed along to subs.

● **New Price Indexes**—To help in the new close pricing policy, ASF has prepared a set of indexes showing the changes in the contract prices of a group of items that account for about 50% of the total dollar value of War Dept. procurement.

In figuring the price that should be allowed in a particular contract, the procurement officer will compare the record of the company with the index for the item in question.

The index is not intended as a rigid formula for calculating prices, but as a yardstick for measuring a contractor's performance against average performance.

● **20% Average Drop**—From the individual item indexes, ASF has built up group indexes showing price changes for all the major branches of procurement.

War Dept. prices, as a whole, have dropped 20% in the past two years. Only one division—the Quartermaster group—had a price increase (6.3%) over January, 1942. Price reductions for 1942 and 1943, by groups, follow:

Signal	28.3%
Air Forces	25.7
* Ordnance	12.7
Surgeon General	21.1
Engineers	6.9
Chemical	6.6
Transportation	2.8

* From October, 1942, only.

● **New Purchase Form**—Another device that ASF will use in applying its close pricing policy is the new Procurement Form No. 2, which went into effect the first of the year (BW—Dec. 4'43, p8). The

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fighter safeguarded
by an airplane
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**Special
Refrigeration Unit
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Plasma**



Chrysler Airtemp has developed a compact, lightweight airplane refrigerator. It is four and one-quarter cubic foot capacity and constructed of aluminum. A special motor operates from the plane's electrical system. After victory, similar refrigerators will preserve food for plane passengers.



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new form calls for an elaborate breakdown on costs and overhead, which gives the contracting officer enough data to make an independent estimate of costs.

Manufacturers still regard Form No. 2 suspiciously, object that it forces them into detailed cost accounting computations that they never would have undertaken for themselves. After two months of working with it, however, many of them feel somewhat better about it.

The Army expects that Form No. 2 will be less of a nuisance as time goes on because once the basic overhead data for a company is on file, it does not have to be submitted again for other contracts.

Not Going Home

North American Philips Co., born in U. S. after Nazis seized parent plant in Holland, gives outline of postwar plans.

One refugee company that is not going home after the war is North American Philips Co., Inc., whose three U. S. plants—at Dobbs Ferry and Mt. Vernon, N. Y., and Lewiston, Me.—are turning out industrial and medical X-ray apparatus, radio and electronic equipment, and tungsten and molybdenum products for the war effort.

• **Expansion Mapped**—That the company is not just an industry in exile, while the Nazis hold the factories of the

original Dutch company, N. V. Philips Gloeilampenfabrieken, in Eindhoven, Holland, was emphasized when company executives explained recently that "North American Philips is and always will be an American company."

Philips' plans for postwar production envision expansion in the field of industrial equipment rather than such consumer goods as electric light bulbs and radio tubes for which the Dutch company (now maintaining statutory offices in Willemstad, Curacao, in the Netherlands West Indies) was famous as Europe's largest manufacturer.

• **Variety of Products**—Chief products of the mammoth Philips plant at Eindhoven, which covered 78 acres and employed 20,000 of the 45,000 Philips employees throughout the world, were—besides incandescent lamps—radio receiving sets and transmitters, radio tubes, television receivers, X-ray tubes and apparatus, sound-film equipment, amplifiers, lamps, industrial appliances, wireless communications equipment, and motion picture sound projectors.

In Europe, Philips was unrivaled in the radio and lighting field, and in 1925 the company made an agreement with American interests under which Philips agreed to keep out of the U. S. market and manufacturers here agreed not to sell radios and allied equipment in the European market.

• **Competitive Pattern**—This agreement was rendered inoperative by the famous consent decree of 1932 which divorced General Electric and Westinghouse

from Radio Corp. of America which then constituted a U. S. radio combination (BW—Nov. 30 '32, p10).

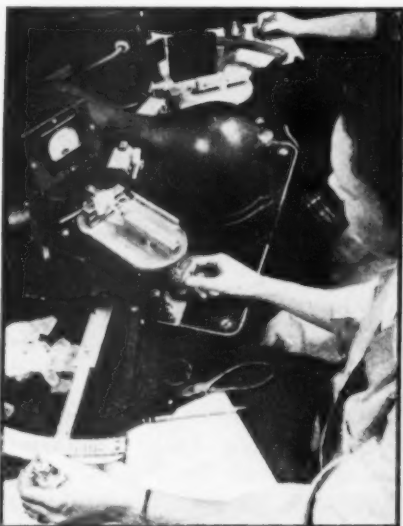
Even with this agreement no longer effective, the long-established market pattern continued to prevail. Philips stayed out of North America, and American producers of radio equipment and light bulbs did not attempt to exploit the European field.

• **Led in South America**—In a sense South America constituted the only market which could be called competitive. Philips radio equipment gained greater acceptance in South America than did that of U. S. manufacturers, however, chiefly because it was especially built to withstand the ravages of tropical climates, and because Philips specialized in short-wave receiving sets popular in Latin America to bring in foreign language broadcasts.

Recent widespread speculation as to a postwar battle of the giants in competition for the U. S. consumer market is disregarded in informed circles. Philips is on record with a statement that the company is not interested in the lighting bulb field in the U. S.; neither does it intend to go into competition with established manufacturers of radio receiving set tubes.

• **Friendly Relations**—More important, historical marketing demarcations, together with patents and long-standing licensing agreements, are expected to fix the postwar pattern of competition.

So well established have the working relationships between Philips and the



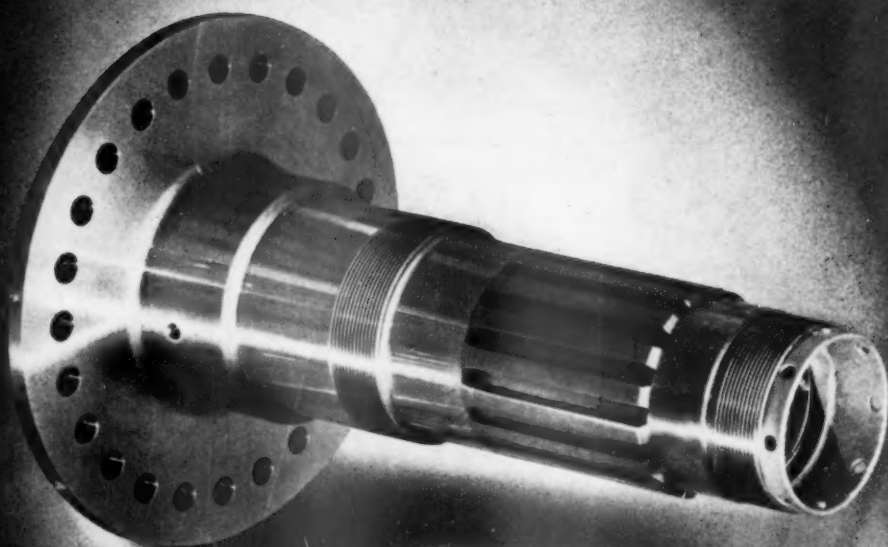
Mass production of quartz crystals used for frequency control in radio communications has been achieved through developments by North American Philips and other companies in a project directed by the



United States Army Signal Corps. Quartz analysis apparatus made by Philips (left) uses X-ray to determine the position of the crystal planes in quartz. Quartz rocks are then mounted on glass at precisely the



angle at which each piece is to be cut (center); and then finally, the quartz is cut by a diamond-edged saw (right) into wafers of varying thicknesses for use in determining frequencies in military transmitters and receivers.



\$7 WORTH OF STEEL...AND A FLYER'S LIFE

Miles high in the sky, over enemy territory or a vast ocean, the life of an American flyer—the safety of a \$75,000 fighting airplane—may depend upon this propeller shaft, or other equally important plane or engine parts.

A lot of responsibility for the \$7 worth of steel in the shaft.

Of course the finished shaft is worth much more—for many man- and machine-hours have gone into machining and milling, threading and drilling.

And that brings up a second responsibility of the steel—to the manufacturer.

What would happen to his costs—to his schedules—if a small imperfection should suddenly show up to cause rejection at final inspection?

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Before Pearl Harbor operators sometimes sacrificed tires to rush through heavier loads. But not today. Tires are too scarce. They must be saved and recapped for double duty. So experienced operators look for Kellys. Their sturdy bodies take recaps better. As new synthetics replace natural rubber, this careful Kelly workmanship is even more important. You can depend on Kellys—today, as for 50 years. They're Tough!

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Springfield **TIRES**

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To speed up production of cathode ray tubes, Philips has developed a merry-go-round oven for baking a coating of Aquadag (colloidal graphite made by the Acheson Colloids Corp.) which is sprayed in the tubes to black out the interior. Fifteen hundred tubes a day go into the oven, at room temperature, are heated to 450°C, then brought down to 200°C before removal. Baking reduces Aquadag to basic carbon form that will not discharge gas inside the tube. White ends of the tubes are coated with fluorescent material on which appears the image in television. Currently all tube production is for the United States government.

American companies become that in 1940, after the Nazis had invaded Holland and seized the Eindhoven plant, the company arranged, through Philips Export Corp., to have U.S. manufacturers build radio receiving sets, according to Philips specifications, for the export market, chiefly in South America.

This arrangement continued until all commercial radio manufacture was stopped by order of the War Production Board (BW—Mar. 21 '42, p62). Philips says it intends to resume the practice of having its radio receivers built in U.S. plants when civilian production is resumed even though the parent company's plants in Holland may be operating.

• **Birth of U. S. Plant**—Philips manufacturing activities in this country date back to 1934 when Philips Metalix Corp. began to turn out medical X-ray tubes and equipment at its Mt. Vernon factory.

Early in 1942, when Philips interests in America organized the North American

Philips Co., Metalix became a division of the new company. The Hartford National Bank & Trust Co. of Hartford, Conn., as trustee under a trust set up by the Dutch company in 1939, holds all the stock in North American Philips. Actually the company is not a subsidiary of V. Philips Glocilampenfabrieken, it is claimed, it will not be governed by the Dutch company after the war over. There will, however, be a free post-exchange of patents and research

techniques among all Philips interests. • **Aid War Effort**—Philips' outstanding achievement in war production is an X-ray apparatus for analyzing quartz—a device which has made possible the mass production of quartz crystal used for frequency control in both military radio transmitters and receivers. This apparatus was developed in cooperation with the U. S. Army Signal Corps, government agencies, and other manufacturers in the communications industries. Before this war, the manufacture of oscillator plates from quartz was an in-

ABOUT BULLETS & PAPER

In the army bullets are bought to be used up — yet the army insists first on quality — not price. Cheap bullets that jam in the tommy-gun slow up the attack — smooth working ammunition speeds the battle. In business, paper is also bought to be used — yet too often paper is bought on price — not quality. Cheap paper can "jam" the smoothness of your office routine—can slow the battle of production.

Get faster action in all your paper work with Parsons high grade papers, made with strong cotton fibers. For nearly a century these papers have been helping American business get its "paper work" done faster, and better.

Write today for Demonstration Folder of these superior business papers and see how they can be used in your business.

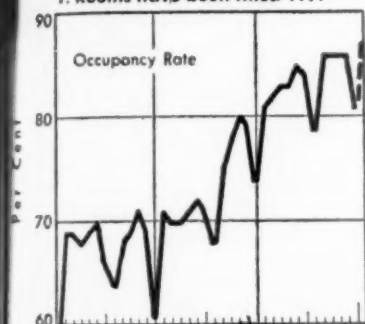
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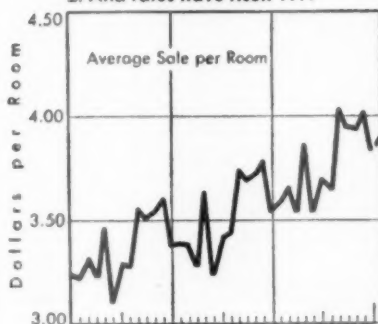
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HOTELS — WAR BOOM VS. LABOR PINCH

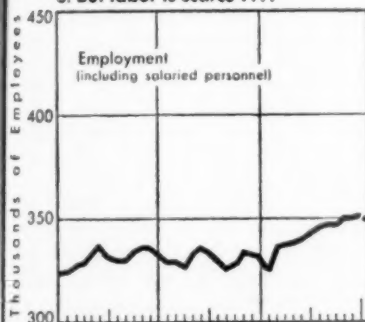
1. Rooms have been filled



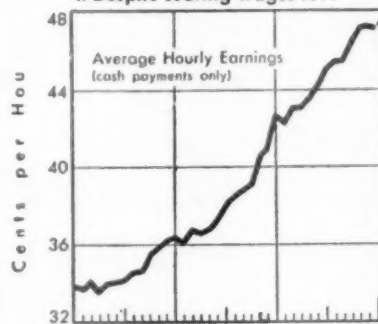
2. And rates have risen



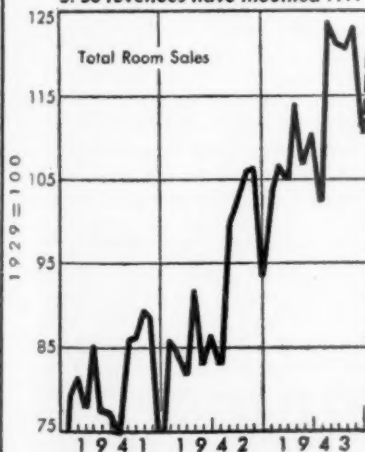
3. But labor is scarce



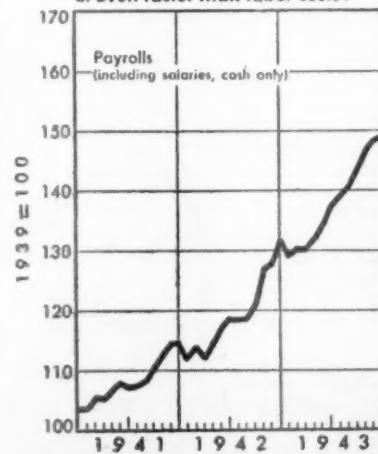
4. Despite soaring wages



5. So revenues have mounted



6. Even faster than labor costs . . .



Data: Harvath and Harvath, Bureau of Labor Statistics.

(not adjusted for seasonal)

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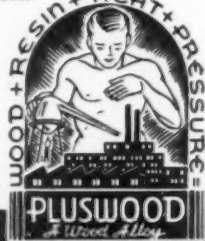
This Pluswood installation is completely exposed to rain, snow, or sun. Temperature range is 140°. Specifications call for a dielectric material with the stability of metal that must at all times be held to 4-2% 50,000 lb. bombers roll over tracks of Pluswood only 3/8" thick. Flexing of these tracks would crystallize metal—but Pluswood takes this movement indefinitely.

This new high density technical material offers an unlimited engineering "ceiling" to every industry—including yours

Dimensional stability and strength beyond metals, plus dielectric qualities few materials contain, were the conditions that specified Pluswood for a unique-testing device at a major bomber plant. Straddling a track made of this high density miracle wood, the instruments installed in heavy bombers are checked with the same accuracy as though the plane were hundreds of feet above the ground.

This is only one application in the development of Pluswood, a brand new technical material with an exciting weight-strength ratio. Dielectric, highly resistant to swelling, shrinking, corrosion, fire and thermal shock, Pluswood can be made to any pre-determined engineering description.

It is not difficult to foresee how much significance Pluswood will have for all post-war industry, for this universal material offers much to designers and engineers planning for the future. Pluswood maintains a laboratory service that you are urged to call on for work on your problems—without obligation. Write today for an engineering bulletin that will give you more factual data and complete information.



PLUSWOOD Incorporated, Oshkosh, Wis.

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Companies*

NORTHERN HARDWOOD VENEERS, Inc. Butternut, Wisconsin
LULLABYE FURNITURE CORPORATION, Stevens Point, Wisconsin
ALGOMA FOREST PRODUCTS, Ltd. Bruce, Ontario, Canada

dustrial science requiring highly skilled engineering supervision.

• **Speed Quartz Cutting**—Crystal oscillator plants have been used in telephone equipment and broadcasting transmitters since about 1922, but in crystal receiver sets, a coil and condenser performs the crystal wafer's function in determining frequencies, hence wavelengths. For military use, however, receivers are subject to extremes of temperature and humidity; hence require a more stable device.

The Philips apparatus finds the position of crystal planes by X-ray diffraction, and workers, with relatively little training, can prepare quartz for cutting, thus making assembly line production possible.

• **Foiling the Enemy**—Oscillator plates used in radio sets are small crystal wafers about the size of postage stamps. Troops in combat are supplied with a collection of the wafers to enable them to communicate at different frequencies.

The speed of battle doesn't leave time for decoding, so ship-to-shore, tank-to-plane, plane-to-plane, walkie talkie, and other communications are vocal. But the troops change radio frequencies by means of oscillator plates (the thickness of the crystal wafer determines the wavelength) at predetermined intervals, thus keeping the enemy from intercepting messages by finding any given frequency through its constant use.

• **Postwar Plans**—Philips engineers do not expect these crystals to be widely used in consumer radio receivers after the war. The coil and condenser is still a cheaper device for determining wavelengths.

But they are expected to have a place in television and frequency modulation, particularly push-button sets, where precision in reaching the correct frequency is important.

Postwar plans of the company envision also the production of cathode ray tubes for television, as well as for other purposes. Medium size cathode ray tubes are being made now for government use.

• **Searchray in Peace**—The Norelco Searchray, now used for detecting instruments of sabotage in the handbags and lunchboxes of war workers (BW-Aug. 14 '42, p70), is destined for postwar use in such diverse industries as candy making and shoe manufacture.

For candy firms, it will be useful in detecting small pieces of glass, metal, and nutshell which infrequently are mixed by accident into batches of ingredients and which sometimes lead to expensive lawsuits. Engineers also see the new device as a valuable substitute for the present inadequate manual examination of shoes for stray nail points inside footwear.



*"Me and 'Tex' Roden?
Say—we've been like that for years!"*

Smart man, Mr. Roden. President of Harold H. Clapp, Inc., and knows a good thing when he sees it.

Take me, for instance. I'm a typical *Cosmopolitan* reader. I'm under 35—married to a swell guy—have two young youngsters (who eat a lot of food—most of it nationally advertised)—and I've got enough money to warrant your careful consideration.

Any wonder *Cosmopolitan* has been on the Clapp list for their famous baby foods for the past 7 years?

But young—that gets him!

Like I said before, Mr. Roden's a smart man. He knows that I'm young

enough to still be forming brand preferences. He knows I've got my eye peeled for the best buy for ME all the time. Young enough so that I'm not an old fuddy-duddy when it comes to reading about new and different products. Young enough to TRY what interests me!

Plenty of us under-35's!

The majority of *Cosmopolitan* readers are under 35. That's easy to understand. *Cosmopolitan* is designed to appeal to us young ones.

Plenty of good fiction. I've read many a best-seller in *Cosmopolitan* long before it became a best-seller. I get a kick out of that.

Why don't *you* get to know me like Mr. Roden does? No matter what you are selling it's a pretty safe bet that I'm one of your best prospects, and once I'm your customer, I'll *stay* your customer for years. And so'll my kid sister. And my baby daughter.

Perhaps you'd better tell *your* story to me.

Cosmopolitan Readers are YOUNG!



Cosmopolitan is where you'll find that whopping high percentage of us under-35's.

Cosmopolitan Readers have

MONEY TO SPEND!



Always have had—they have now—and you can expect them to have it in the future!

Cosmopolitan

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Floor Protection

For use on all types of floors. Spreads uniformly, dries in about 20 minutes. Leaves a tough, long-wearing, lustrous finish. Water-proof—takes damp moppings with a mild solution of soap and water. Used by leading institutions, industrial and commercial firms. Write Industrial Division, R. M. Hollingshead Corporation, Camden, N. J., for name of nearest distributor.



Powdered and Liquid Hand Soaps • Scrubbing Soaps • Cleaners • Floor Waxes • Odorless and Concentrated Insecticides • Furniture and Metal Polishes • Drain Pipe and Bowl Cleaner • Protective Hand Cream • Degreasing Compound • Hydraulic Fluids • Rust Preventives.



BUY MORE BONDS

Trainers for Sale

DPC is unloading the light planes bought from private owners to train Army instructors, but original owners get first shot.

Uncle Sam has begun the sale of about 5,000 light airplanes requisitioned from private owners for training purposes.

• **Course Ended**—The planes have been declared as surplus and are being turned back because the part of the training course which developed Army air instructors (about 20% of the entire program) was closed down Jan. 15.

Defense Plant Corp. will handle the sales. Casual outsiders are warned against getting the notion that they can step in and buy the planes; original owners will get first shot at them.

• **Training Centers Closed**—The planes were lent by the government to flight training contractors, commercial organizations which handled the first step toward instructing youngsters in air combat for the Army and Navy. Liquidation of the planes withdraws 59 training centers from the training program.

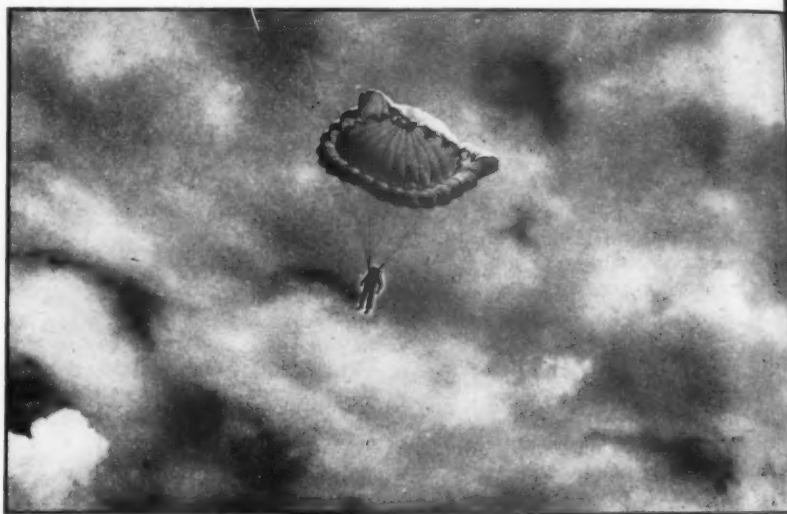
Henceforth the Army will use none of its own instructors—men who have the advantage of recent combat experience. The other phase of the Civil Aeronautics Administration's War Training Service program (a ten-hour screening course for 70,000 Army cadets a year) has not been affected, but the end of all nonmilitary training aid to the air services is in sight.

The Navy is expected to terminate June its War Training Service program which instructs 18,000 cadets a year. Army and Navy pilot personnel are not at full strength, and military schools are easily train the replacements.

• **700 Posted**—By last week end, about 700 planes had been posted in calls for bids at CAA regional offices. Officers in charge expected the number to reach 1,000 as a result of the present training cutback.

There is no immediate indication when DPC will get additional batches of the remaining 4,000. Types purchased by DPC include Stinson, Beechcraft, Waco, Fairchild, Piper, Aeronca, Vega, and Taylor Craft, mostly under 400 hp.

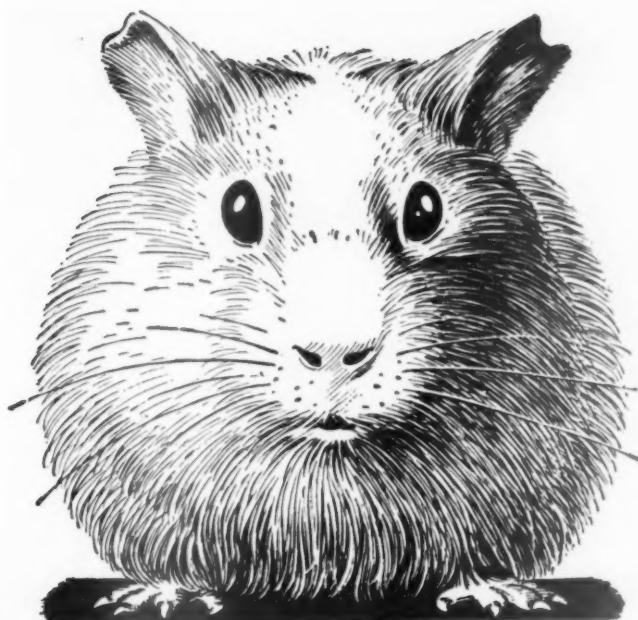
• **Jones' Deal**—This biggest of second-hand airplane deals went over the desk of Jesse Jones, chairman of DPC and Secretary of Commerce. The CAA, whose War Training Service contracts



CHUTES THAT STEER

A parachute that can be steered is helping air-borne fire fighters protect vital timber preserves by permitting them to land close to forest fires. Rudder action on the U. S. Forest Service's novel chute is provided by two rope-controlled slots which extend rearward from the silken canopy (above). By pulling the lines, a "smoke jumper" can pick his course

rather than depend on air currents which frequently blew him far from desired landing spots. Elimination of oscillation (swinging) and opening shock are also claimed for the slots developed by Frank Derry, Forest Service parachute instructor. His chute will be used by the 120 jumpers, many of them conscientious objectors, who'll fight fires this year in western forests. The 70 jumpers employed during 1943 made 120 jumps.



Where does a guinea pig begin ?

THIS little "guinea pig" is one of Wyandotte's experimental pilot plants . . . and it began life in some pretty strange places. Built by emergency measures to answer an emergency need, parts to create it were recruited from nearly every corner of the country.

It takes more than test tubes, you see, to compound the formulae which shorten war and serve mankind. It takes centrifuges, vats, driers, piping, valves . . . besides a myriad of intricate equipment rare as steaks right now.

On such "missing links" the success of an entire project often depends.

Putting their sleuthing talents to work, Wyandotte men have solved supposedly impassable shortage problems time and again. Dedicated to research . . . *regardless* . . . they piece together the proverbial silk purse out of a sow's ear by burrowing, borrowing, and often even building their own.

Imagination and elbow grease. Ingenuity and know-how. With these as its weapons, industry is rising to the

greatest challenge of all time. Learning, too, through the pressure of urgency to improvise in order to improve. At Wyandotte, that ability to bypass obstacles and pioneer along new paths is a force that well may benefit your own business.



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HEAD MEN

Chosen to head the San Francisco Employers' Council during the absence of Almon E. Roth—now chief of the National Federation of American Shipping (BW—Feb. 5 '44, p19)—are George Bahrs (right) and William Storie (left). Bahrs, taking over the presidency, has been the council's general counsel, and Storie, now elected vice-president, was secretary-vice president. Organized in 1939 to stem a strike wave in the Golden Gate City (BW—Oct. 26 '40, p39), the council last year negotiated 76 collective labor agreements, settled 111 controversies.

borrowed the planes without rental charge, is in the Dept. of Commerce.

Formalities of the transaction involved nullification of WPB's Limitation Order L-262, which froze all civilian airplanes in the hands of their owners. Release of the frozen planes was accompanied by an OPA used-plane price ceiling—the Oct. 1, 1941, price of the plane when new, depreciated at the uniform rate of 8% per year for ten years. Defense Plant Corp. purchased the planes originally and under this formula. For a plane that cost \$1,000 new and was four years old, the DPC paid \$680. Ceiling price of the same plane, now five years old, is \$600.

● **How Owner Recovers**—The former owner of a requisitioned airplane can be sure of getting it back by bidding not less than ceiling price, in which case all other bids will be ignored.

Abrogation of the freeze order also



A Report to the Public by JOHNS-MANVILLE

Highlights of our second full year of wartime operation

HOW WELL American industry is doing its wartime job is now known to the American public. They know that during 1943 production miracles were performed to make our fighting men the best equipped in the world.

The road to Victory will be hard and long. We must continue to supply our armed forces with everything they need. But some day peace will come and American industry will face the enormous task of converting our factories from war production to the making of the many things we want and need.

The problems will be difficult. We at Johns-Manville are facing these problems squarely, with full recognition of our responsibilities and our obligations to the public, to the Johns-Manville men and women now in service, to our present employees and to our stockholders.

We now have \$10,000,000 deposited in a Fund for Deferred Expenditure to meet the unusual contingent obligations created by war, to care for capital expenditures which would have been made during the war years if it had not been for war conditions, and to help finance necessary post-war developments.

Part of this Fund is intended for the peacetime expansion we believe probable, and will help provide employment for our men and women now in the armed services when they return. In such expansion will lie the future opportunities for all of us.

We know that our obligations can be met only by devoting all our abilities and intelligence to keeping our company sound and healthy, and by anticipating and preparing for the future.

We publish below highlights of our annual statement as a report on the progress we have made in 1943.

Total Income	\$107½ million
For all costs (except those shown below)	\$ 48 million
To employees for salaries and wages	\$ 43½ million
To government for taxes	\$ 11½ million
To stockholders in dividends	\$ 2 million
Leaving in the business	\$ 2½ million

* Wages and salaries in 1943 were 17% greater than in 1942. Employees numbered 14,100 or 1,100 less than the year before.

* Taxes were equivalent to \$13.56 per share of common stock or \$817.64 per employee.

* Earnings after taxes were 4½ cents per dollar of total income, compared to 5 cents last year.

* Dividends of \$7.00 per share were paid on the preferred stock and \$2.25 per share on the common stock.

* Army-Navy "E" awards were made at our Manville, N. J., and Lumpoc, Calif., factories and a second "E" award was made at the Kansas Ordnance Plant built and operated for the War Department by Johns-Manville.

* More than a thousand products manufactured by Johns-Manville are now serving our armed forces and our war industries.

fighting forces, and repeats its pledge that—when peace is won—we again will produce more and better things for the kind of better living for which our country is fighting.

Lewis H. Brown

PRESIDENT, JOHNS-MANVILLE CORPORATION

These are a few of the products coming off the Johns-Manville production lines: Insulations for ships, steel mills, synthetic rubber plants and other vital war industries; packings, gaskets, brake linings for war machines; building products for war construction; Celite products for camouflage paints; asbestos fiber; bombs and shells.

Those desiring more complete information should refer to a booklet containing the formal Annual Report to Stockholders which we will be glad to furnish on request. Address, Johns-Manville Corporation, 22 East 40th Street, New York 16, N. Y.

Johns-Manville will continue to focus all its energies on the production of war materials needed by our

releases all private planes not taken by DPC. Private airplanes totaled about 25,000 before the war, and the figure now is about 23,000. Probably not very many of them will be sold by their present owners.

• **CAP Gets Gas**—A large number are in the semimilitary Civil Air Patrol. A CAP pilot-owner gets fees when he performs a courier mission, but otherwise he enjoys the privilege of getting gasoline and flying unhampered by certain of the wartime restrictions.

Owners of private airplanes get gas rations from OPA under the same system that governs distribution to private boats and to construction and farm equipment. OPA is favorably inclined toward all private flying if it maintains or increases the country's stock of pilot skill.



America's Rubber

U. S. imported 22,380 tons from Latin neighbors last year, 500 of it from plantations of Ford's Brazilian subsidiary.

Last year U. S. imports of natural rubber hit 60,000 long tons—hardly 10% of prewar imports. Latin America provided 22,380 tons of the 1943 supply (the rest came from Africa and Ceylon).

• **Rebirth of an Industry**—Although Western Hemisphere production is hailed as a great wartime achievement, it really marks the rebirth of a once-famous industry. At the turn of the century, before Far Eastern rubber came into its own, Brazil alone was producing better than 35,000 tons a year.

Natural home of the hevea rubber tree is the Amazon Valley, primarily in

Recognizing sanitation as a key element in the successful development of a plantation project, engineers keep careful watch on the water supply of laborers' villages within the Ford rubber plantation at Belterra, Brazil. Obtained from a jungle spring, the water—pumped through 35 miles of pipe to all parts of the project—is given weekly laboratory tests for purity. And time clocks (left)—incongruous devices in the customarily indolent atmosphere of a steaming Amazon jungle—measure the laborers' eleven-hour work days.

Brazil but stretching west into neighboring republics. It is here that the U. S. Rubber Development Corp. sank most of its \$83,000,000 investment. Once recently RDC turned over its project in Brazil to the Brazilian government in operation, the U. S. to buy all exportable surpluses until mid-1945.

• **How Much It Costs**—If no account is taken of the future effects and use of the RDC money, rubber has cost the U. S. 83¢ a lb. to date. Future production will be less costly, but the price has a long way to drop before it is as low as Far Eastern prices.

RDC's efforts have been exclusively with wild rubber in Latin America. But 16 years ago the Brazilian subsidiary of the Ford Motor Co. launched its famous plantation experiment in Brazil, which last year added 500 tons to the U. S. stockpile. An editor of McGraw-Hill's Engineering News-Record, just returned from an inspection tour of the project, reports that planned expansion of the Ford project may boost output to 5,000 or 6,000 tons by 1950 when trees come into full bearing.

• **Two Plantations**—Ford started planting rubber trees 500 miles up the Amazon on the tributary Tapajoz River. After 7,000 acres had been cleared, conditions proved so unfavorable that a shift was made downstream only 75 miles from the junction of the Tapajoz and the Amazon, still 500 miles inland.

The second plantation, at Belterra, now covers 17,000 acres—only a small part of the 2,500,000-acre concession held by Ford in Brazil. Some 4,500,000 trees have been planted on both sites, the majority on the Belterra acreage.

• **Improved for Workers**—Belterra has been divided into 1.5-mile squares and is interlaced with 150 miles of roadways. More than 900 dwellings have been erected for the 8,000 workers and their families, and Ford has built schools, recreation halls, churches, stores, a 100-bed modern hospital, and a power plant.

Only where labor is concerned have the Ford and RDC projects conflicted. Last year rumors of high pay drained workers from Belterra, but now they are drifting back to the steady pay (50¢ for an 11-hr. day) and security of the Ford plantation. There labor receives free housing, medical care, and schooling, and can purchase necessities below cost.

• **High Producers**—Trees developed at the Ford plantation are almost unique. By careful grafting and selection they thrive in the peculiar soil, have become particularly high producers, and recently have been shown to resist the leaf disease which drove the experimenters from the first test plantation. Tests have proved the Ford trees to be better than samples from the Far East.

Guayule Attacked

House committee plans full investigation of plantations sponsored by the government to supplement rubber supply.

The House Agriculture Committee is launching a full investigation into the government-sponsored program for the development of guayule as a domestic rubber source (BW-Mar.14'42,p16) because of congressional dissatisfaction with the progress of the program.

Congress has already liquidated the experiments in rubber extraction from goldenrod and kok-saghyz (Russian dandelions), but this is the first action it has taken on guayule. It could: (1) order the project called off and let farmers plow under the 32,000 acres planted; (2) wind up the program in a more economical way and realize about 10,000 tons of rubber by 1947 at a gross cost of something like \$2 to \$2.50 a lb.; or (3) complete the emergency program and get possibly 28,000 tons of rubber at \$1 a lb. during the next seven years.

Guayule shrubs last year supplied about one-seventh of U. S. rubber imports, estimated at 60,000 tons, and will equal or surpass that in 1944. Domestic production was 450 tons from old shrub bought in California from Intercontinental Rubber Co. (BW-Mar.14'42,p17) plus 150 to 200 tons from wild bushes harvested in southwest Texas.

• **All in California**—Cultivated U. S. guayule is all in California, except for some experimental plots, and won't be old enough to harvest until November when the nation's first and only mill will start grinding at Salinas, Calif. This mill can handle 30 tons of shrub a day. If Congress provides the funds for the Dept. of Agriculture, a second mill will be built for about \$350,000 at Bakersfield, and the two could produce 700 tons of rubber by June, 1945.

• **Big Appropriation**—The guayule project started in March, 1942, when the Dept. of Agriculture acquired the properties of the Intercontinental Rubber Co. at Salinas, where experiments had been under way for a quarter of a century, and planted 800 acres with some of its 22,000 lb. of seed.

After the Baruch rubber report stressed the need for a rubber supply in addition to synthetics (BW-Sep.19'42, p15), \$19,000,000 was added to earlier, smaller appropriations. The total was \$25,000,000 in the latest (June 30, 1943) balance sheet.

There was enough seed two years

Take a hint from **ISO-OCTANE**



and learn a way to trim production costs!

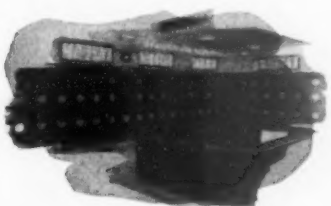
1 Iso-octane is the super motor fuel that makes our aviation gasoline superior to any other in the world. Originally iso-octane cost \$300 a gallon. Research brought this down to \$25 a gallon . . . then scientists got hold of the secret that made iso-octane commercially practical.



2 Today, mighty iso-octane is being produced in pure form at less than \$2 a gallon. Tomorrow, with mass production economies, motorists will enjoy its thrilling power for little more than they now pay for ordinary "gas"!



3 Like every major advance in petroleum refining, this long step from expensive research to low-cost commercial production has been hastened by automatic control instruments. It is significant that the industry has used more Foxboro instruments than any others!



THESE contributions of Foxboro Instruments, while spectacular, are simply typical of the cost-cutting jobs they are doing for paper, textile, rubber, food and scores of other industries. Hundreds of manufacturers rely on these precision instruments to gain competitive price-and-quality advantages!

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PRECISION PARTS

FOUR FACES—ALL ACES



... 6 diameters, 4 faces ...

There can be no let-up to the ever-increasing bomb-loads that America's smooth-working planes must dump on the enemy. The outstanding performance of these great bombers and fighters is a tribute to American Industry.

The magneto-shaft illustrated is only a small part of a complicated aircraft engine, but it is typical of the careful machining that is bringing our boys back alive from so many dangerous missions. This shaft must be cylindrically-ground on 6 different diameters and 4 separate faces, and both the faces and the diameters must be ground to a 12-16 micro finish.

Ace has learned a lot from the exacting standards of production for war. The knack, and the modern machinery that have made possible mass-production methods without sacrificing high standards of accuracy, open new possibilities to post-war manufacturers.

If you are thinking in terms of small parts that call for stamping, machining, heat-treating, or grinding, it will pay you to consult with Ace. Quotations from samples, blueprints, or sketches.



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Before development of a weed spray now used, girls did the weeding by hand on the 800-acre guayule plantation at Salinas, Calif. Two deaf mutes (in foreground) disliked the work because it hampered "conversation."

ago for 180,000 acres, but the need for food crops, and farmers' natural desire for a one-year cash crop, kept guayule planting down. Last spring 23,000 acres were planted with seedlings, and before April ends the season, 9,000 acres will have been added.

● **It's a Slow Process**—The shrub takes six or seven years to mature fully and grows best on rich irrigated land. Its latex content is affected by weather and water; young dry shrubs contain about 7% latex while twelve-year-old plants have yielded as much as 19%. To improve the yield, three-fourths of U. S. guayule acreage is irrigated land, which adds to the cost of production.

Mexico is harvesting and milling wild guayule in the state of Coahuila and selling it to the U. S. At Torreón the Continental Mexican Rubber Co. even began extracting resins and insolubles (15%) in December, thus producing a rubber comparable to natural hevea. Wild harvestable guayule is said to be getting scarcer, and some backers of the U. S. program think two years will see the end of the wild supply in Mexico.

● **New Mill Planned**—The Mexican company is planting close to 4,000 acres this spring and expects to have sufficient cultivated acreage eventually to supply its three mills which have a capacity of about 150 tons of shrub a day.

The General Tire & Rubber Co. is erecting a new mill at Cuatro Ciénegas, Coahuila. These companies remember Gen. Dwight Eisenhower's report of some years back strongly recommending

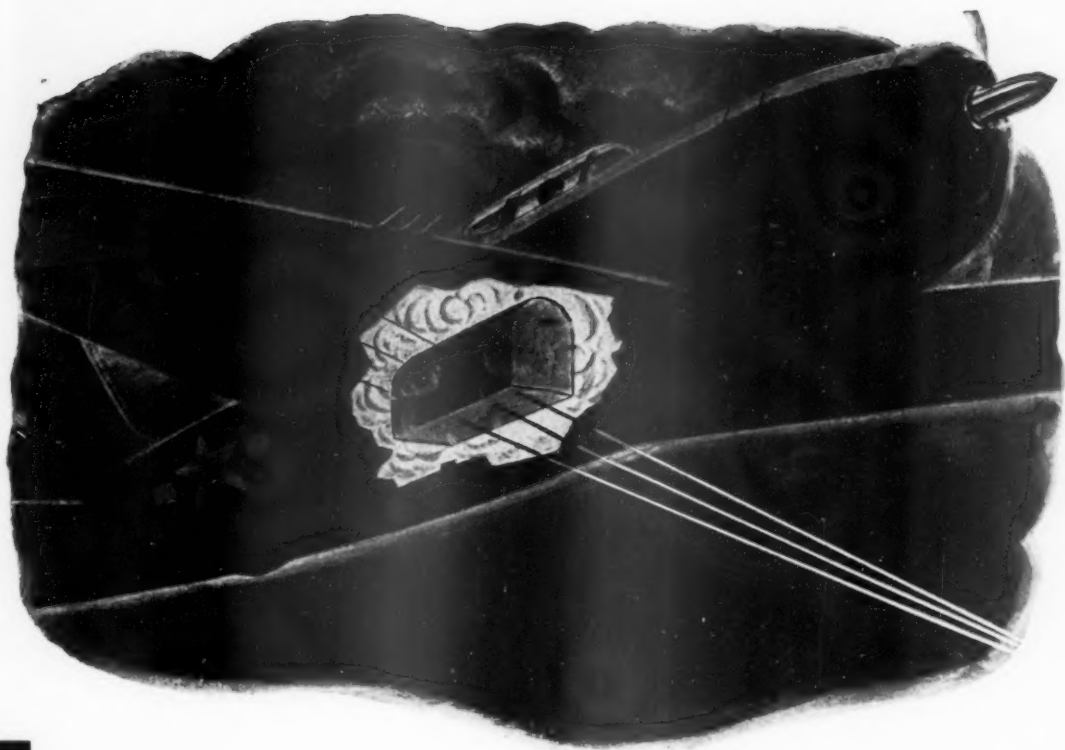
such an insurance for the U. S.—a home rubber source—against what happened when Japan seized the Netherlands East Indies.

● **Project in Haiti**—Cryptostegia, a vine that can be bled for many years, was the second plant recommended in the Baruch report. Some 40,000 acres of it, almost all in the SHADA (government agricultural development agency) plantations in Haiti, were financed by a \$5,000,000 Reconstruction Finance Corp. loan (BW—Feb. 13 '43, p. 22). A few tons of cryp rubber have been made experimentally, but when and how much and at what price commercial cryp will be made is still conjecture.

Optimistic Thomas Fennell, president of SHADA, hopes to have 3,000 tons this year, 12,000 next year, by blight and grubs have set back even his cheerfulness. A big hope to impoverished Haiti, SHADA is still a small hope for immediate United States needs.

Total foreign disbursements by the U. S. for natural rubber up to Nov. 1 were \$83,040,000 in the Western Hemisphere. If the Japanese destroy a big part of the 800,000,000 hevea trees in the East Indies, the investment may pay off.

● **Imports Pushed**—Synthetic rubber, chiefly buna, must continue to supply current needs in stretching the stockpile of crude rubber. But imports, especially if they are pushed up a third this year, to 80,000 tons, as expected, will go far to supplement the synthetic supply, which hasn't yet reached its rated capacity of 800,000 long tons.



Taking the heat off tracers—before they hit!

Electric eye keeps convoys fire-safe!
First trace of smoke on ship is spotted, located by watchful eye in Kidde's Rich-Audio Cabinet on bridge.

Horsepower in a package! Tremendous energy, available instantly at the turn of a valve, is provided by carbon dioxide, stored in Kidde cylinders.

Gas blasts out crash fires! Gasoline fires die suddenly when airport crash trucks smother them under carbon dioxide gas from Kidde extinguishers.

Explosive fumes from gasoline tanks, ignited by tracers, could easily blow up, send plane crashing in flames. So our pilots flood area around tanks with carbon dioxide gas from Kidde cylinders. The fire-smothering carbon dioxide replaces dangerous vapors, robs enemy tracers of incendiary effect.

Walter Kidde & Company are marketers of ingenious devices for putting the discoveries of modern science to work. Harnessing gases-under-pressure is one example. War products now confidential promise peacetime applications. Other completely new products are on our drawing boards.



WALTER KIDDE & COMPANY, Inc., 221 Main St., Belleville, N. J.



COMFORTABLE LIVING ASSURED

ONE hundred powerful, new Diesel tow-boats are now at work bringing oil up the Mississippi and through the inland waterways along the Atlantic Coast. That's comforting news to many homes and plants that have been worried about getting through this Winter.

Comfortable living is assured for the crews of these barge-pulling tugs, too. The specifications as laid down by the U. S. Engineers Department call for York automatic oil burners to keep the quarters on board warm and comfortable . . . to save space, reduce weight, and deliver more heat.

Years of experience in designing and installing oil-heating equipment are behind York Heat. To this back-log has been added the further experience of applying York Heat to all kinds of war-time uses. You can be sure that when York Heat is again available for the homes of tomorrow, it will offer new economies, new conveniences, and new living comfort.

YORK HEAT

Division of
YORK-SHIPLEY, INC.
York, Pa.

Colorado Treaty

New river agreement with Mexico has favorable terms, but California objects. A fight over terms looms in the Senate.

Mexico gets 1,500,000 acre feet yearly of Colorado River water for irrigation in Lower California, about one-tenth the river's annual flow, plus 200,000 acre feet annually when the U.S. has it to spare.

• **Sent to the Senate**—These are the terms—unexpectedly gratifying to U. S. irrigation authorities since Mexico's historical claim has been for 3,600,000 acre feet yearly—worked out secretly in the past three years by the State Dept. and the Mexican authorities to settle the international status of the river permanently.

The agreement, in the form of a treaty, was sent last week by President Roosevelt to the Senate, where it may encounter a fight.

• **Some Opposition**—California held out against advisory approval of the terms by the Committee of Fourteen representing the states of the Colorado basin, and

California senators may resist the treaty on the claim that it threatens the water supply of growing Southern California. (This is the basis also on which California resists the newly approved contract giving Arizona 2,800,000 acre feet annually from the Colorado.)

However, the states were kept fully advised on the Mexican treaty progress and voted through their representatives late in January at Salt Lake City six to one to approve the treaty terms. Senators from the seven basin states are understood to have learned the terms before they were published, and only California dissented.

• **Favorable Terms**—By the treaty, the water supply of Mexican farmers will be cut down along with that of U. S. farmers in event of drought. Actually the treaty is even more favorable than terms appear since only half the 1,500,000 ft. is to be "virgin" water, the other half coming from return-flow water that has already done duty in irrigated fields north of the border.

• **To Build Dam**—Mexico is to build storage facilities within five years, and the U. S. promises to build in the same period the \$40,000,000 Davis Dam—begun in 1941 but stopped by war—below Boulder Dam as a reregulating reservoir to guard against water wastage.



POSTWAR PLANNERS

Business men of the country's biggest city are lining up with the work of the Committee for Economic Development as a C.E.D. organization for New York gets into action under the chairmanship of Alfred E. Smith (cen-

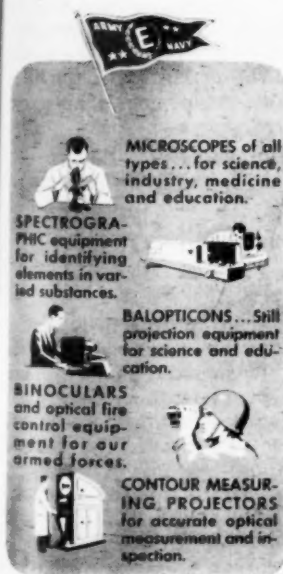
ter), former governor of New York, with Clarence Francis (right), chairman of the board of General Foods, as vice-chairman. Appointment of these planning leaders was announced by James H. McGraw, Jr. (left), president of McGraw-Hill Publishing Co., C.E.D. chairman for New York state.

YOUR Share for YOUR Red Cross War Fund

IF YOU HAVE AN OPTICAL PROBLEM
COME TO OPTICAL HEADQUARTERS
*Bausch & Lomb offers you this
unique combination of advantages:*

- I. A Scientific Bureau to solve optical problems.
- II. Ninety years of optical engineering and development.
- III. Its own optical glass plant.
- IV. The facilities that produce America's largest line of precision optical products.

How to Predict the Winners in Tomorrow's Production Race



MICROSCOPES of all types... for science, industry, medicine and education.

SPECTROGRAPHIC equipment for identifying elements in varied substances.

BALOPTICONS... Still projection equipment for science and education.

BINOCULARS and optical fire control equipment for our armed forces.

CONTOUR MEASURING PROJECTORS for accurate optical measurement and inspection.

This is a metallographer. He is using Bausch & Lomb Metallographic Equipment, a microscope and photomicrographic apparatus designed especially for the study of the fine structure of metals under high magnification. Before him each day pass the enlarged, prophetic pictures of tomorrow's industrial miracles—recorded photographically, if need be, for tomorrow's use.

He is learning the secrets of the metals and alloys that will build the machines and the products that will be tomorrow's production winners, as today they are speeding America's victory.

His B&L Metallographic Equipment is a modern development of that originally

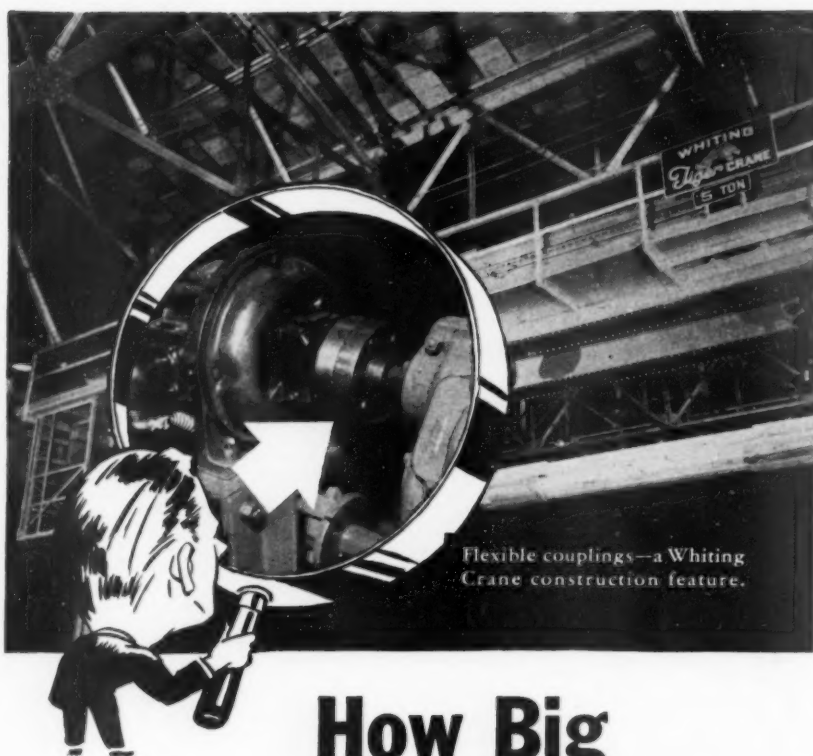
designed and built by Bausch & Lomb in 1900 for a famous technical school—the first such equipment in America.

It is just one of the many precision optical tools developed by Bausch & Lomb in the interests of peacetime scientific and industrial research and control that have been converted to war uses. Post-war competition, of course, will require equally complete control of the metals which you use.

BAUSCH & LOMB*
OPTICAL CO. ROCHESTER, N. Y.

ESTABLISHED 1853

*Makers of Optical Glass and a Complete Line of Optical Instruments for Military Use, Education, Research, Industry, Eyeglass Correction and Conservation



How Big should a Crane be?

Only cranes which are accurately suited to their tasks can be expected to handle materials with greatest economy. A crane that is too big and heavy will result in high investment and power costs. Cranes that are too lightly constructed usually have a short service life with excessive maintenance costs. To design and build exactly the right crane for best over-all efficiency under the conditions which exist in a particular plant, is the work of competent crane engineers.

Men who design Whiting Cranes have the *experience* as well as the technical knowledge to select girders, bearings, gears, controls, and motors which will give the most economical, maintenance-free service. To be sure of real crane satisfaction, ask Whiting Engineers to design your next crane. Whiting Corporation, 15661 Lathrop Ave., Harvey, Illinois.

BUILDERS OF QUALITY CRANES

FOR OVER 60 YEARS

Dependable · Quiet-Running · Durable

WHITING
Overhead
Traveling **CRANES**

How to Save Feed

Contending as much meat can come from fewer animals, livestock experts seek to curtail ravages of disease, accident,

Barring ceiling manipulations and few urgent appeals to farmers to cull herds and poultry (for meat) flocks, Washington's efforts thus far publicize to assure dairymen and stockmen adequate feed for their critters this year and chiefly in the future and less than concrete. But, for some months now, a program fostered by private industry has been underway which promises to produce more food from less feed. This is the National Livestock Conservation Program, which is gathering momentum week by week.

Purpose of the N.L.C.P. is to select more and better animals to market—pigs, sow, cow, or ewe in breeding herds and flocks. The average litter contains ten pigs. Of these, slightly more than one reach the dinner table as meat, lard, and byproducts. The other four fail to mature, falling victim to some mishap between dead birth and death from disease or injury en route to market.

• **More Care Pays**—Many successful hog growers regularly raise to market weight more than seven, some even eight pigs per litter. These farmers thus produce the same amount of pork with 20% to 25% fewer sows.

The percentage of feed saved in carrying the breeding herd through the year is equally great, and there is the further economy achieved by not feeding so many pigs part way through to maturity and then losing them.

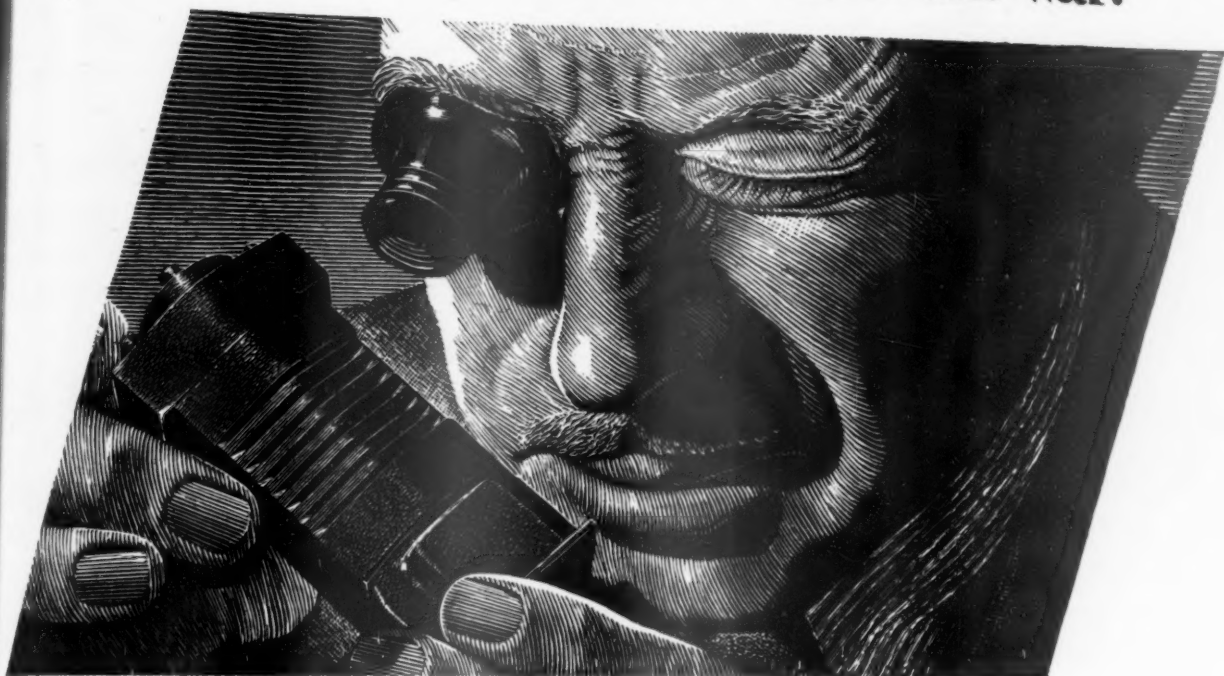
• **Bushels and Pounds**—N.L.C.P. figures that 140 lb. of feed are lost on a pig that dies at birth (this includes feed for the sows during gestation and suckling). This amount of grain fed to a pig would produce 28 lb. of pork. The complete table used in the program's campaign to farmers is:

Age at Death (weeks)	Feed Lost (lb.)	Pork Loss (lb. liveweight)
Birth	140	28
10	260	53
18	360	73
26	602	122
34	990	200

Beef and dairy cattle activity of the group centers on achieving a higher calf rate, through more productive use of bulls in herds, fostering better care of young stock, and disease control. A particular objective is the control of cattle grubs.

• **Hides and Meat Damaged**—One out of three hides marketed shows grub

Who can use this after the war?



SO far this is definitely a war baby. It was born to meet an exacting wartime need. Every one that is made goes right into the fight.

It is an electric motor designed for jobs which no regular electric motor could fill.

The jobs are on America's fighting planes. Working control flaps—opening and closing cooling shutters—lifting landing gears—and the like.

Every ounce on an airplane is precious. So usual electric motors were out.

This one weighs as little as 8/10ths of a pound—others can move as much as 35 tons.

Naturally it took a whole new kind

of engineering to make this motor.

It took new ideas from the drawing board up. It took new materials—like glass-insulated wire—to build it. It required finer, more precise craftsmanship than had ever gone into a motor before.

After the war, these motors can be sold to manufacturers of peacetime products.

That is why we are telling you about them now.

You may have need for such a compact, ultra-efficient source of power. You may be able to use the kind of engineering thinking that developed it—or the production technique that builds it and about 250 other Lear products.

PLANTS: Piqua, O., and Grand Rapids, Mich. **BRANCHES AT:** New York, Los Angeles, Chicago, Detroit, Cleveland, Providence.



DUST

IS DANGEROUS



KEEP IT OUT WITH GOOD FELT WASHERS

The entry of dust, dirt or foreign matter is probably the principal cause of bearing failure. The dust kicked up by tanks would put them out of running order in no time were it not for small, but vitally important FELT Washers which protect the bearings by excluding dust, dirt and grit, also mud and slush. A FELT Washer, close to the sealing element, performs a dual function; (1) it acts as an exclusion agent; (2) the wicking of the oil-saturated FELT provides a clean bearing point for the seal which in turn prevents the loss of lubricant within the assembly.

Several important FELT uses are listed below.

As the most important FELT manufacturer, we have first-hand knowledge of new techniques and uses. We can recommend efficient and economical FELT applications, and supply FELT or Cut FELT Parts engineered to your specifications in any quantity. Please call on us for samples, technical data or expert assistance. The obligation is always ours!

WRITE FOR "THE STORY OF FELT"

American Felt Company



General Offices: GLENVILLE, CONN.

New York; Boston; Chicago; Detroit; Philadelphia; Cleveland; Los Angeles; San Francisco; Dallas; St. Louis; Seattle

PRODUCERS OF FINEST QUALITY FELT PARTS FOR OIL RETAINERS, WICKS, GREASE RETAINERS, DUST EXCLUDERS, GASKETS, PACKING; VIBRATION ISOLATING FELTS AND INSULATING FELTS

damage. Carcass trimming losses from grub damage totaled nearly twelve million lb. of meat in 1942. Average loss on grubby cattle is estimated at \$3.56 per head. Grubs likewise reduce weight gains in beef cattle and milk production in dairy herds.

The sheep conservation program centers on disease and parasite control, and on increasing the lamb rate in farm flocks.

• **Leinbach in Charge**—Director of the N.L.C.P. is Dr. Fred Leinbach, on loan from the University of Maryland's College of Agriculture. Founders and supporters of the committee are pretty much the same as the folks behind the 4-H clubs, include leading figures in farm and livestock organizations, and such outstanding packers as Thomas E. Wilson.

The program is being developed on state-wide lines, with the active assistance of the U. S. Dept. of Agriculture, state agricultural colleges, and top-level livestock associations, veterinarians, and business groups. Thirty-one states are already organized.

ALABAMA STRIKES OIL

Alabama became the twenty-sixth oil producing state last week when Hunt Oil Co. of Dallas, Tex., an active independent, brought in a well 15 miles southwest of Butler, in western Alabama, and about 15 miles east of a Gulf Oil Corp. producer in eastern Mississippi.

The new well was estimated good for 50 bbl. daily of 20 gravity oil, from the Selma chalk at 2,800 feet. The well represented the first successful drilling.



"Wired radio" provides constant two-way communication between the block signal operator and engineer aboard all trains on the Pennsylvania

The Alabama strike recalled that several oil companies have been wildcatting actively in the southeastern states, without, so far, a great deal of production, although Florida and Virginia have one producer each. Wildcatting also has been active in Georgia, South Carolina, and eastern Maryland.

Railroad Talkies

Pennsy begins the use of "wired radio" on moving trains as critics assail the carriers as hostile to new inventions.

Ever since the wreck of two crack Atlantic Coast Line streamlined trains near Lumberton, N. C. (Dec. 16, 1943), people have been asking why U. S. railroads do not use two-way radios on trains so that wayside signalmen and train dispatchers could talk directly with the crews of moving trains.

• **Railroads Assailed**—The question has been kept at white-heat by U. S. Senator Harley M. Kilgore's committee, which has charged that the railroads are middle-aged or even senile in their thinking when it comes to adopting new inventions.

• **New System Perfected**—But long before Senator Kilgore's committee began beating the drums for radios on trains, the railroads were perfecting a "wired radio" system, not to displace, but to supplement the conventional signal systems.

This week, the Pennsylvania Railroad announced installation and practical



R. R.'s Belvidere branch in New Jersey. This installation by Union Switch & Signal Co. may help to determine radio's role on the "high iron."

operation on its 67-mile branch between Trenton and Phillipsburg, N. J., of a two-way "wired radio" system—officially described as an electronic train telephone system—which permits continuous verbal communication by wayside signalmen and train dispatchers, with moving trains, between trains and between the head and rear of trains.

• **Used First in 1940**—Railroaders recalled that the Pennsylvania Railroad's new device was not something whipped up overnight—that in 1940 (BW—Nov. 30/40, p. 34) voice communication between the front and rear of a moving train, as well as with dispatchers and wayside signal stations, had passed beyond the experimental stage. In that year, the Bessemer & Lake Erie began using two-way communication on two of its mile-long coal-and-ore trains.

Pennsylvania Railroad officials stated that, while not yet adapted to general use, the new means of communication has now materially added to the efficiency of train movement control. Its system has been produced in collaboration with the Union Switch & Signal Co. after several years of experimentation.

• **Not Radio, Not Phone**—Pennsylvania officials characterize the new system as neither telephone nor radio. It incorporates certain features of both and eliminates other features.

The system permits the crews of freight trains and block operators in wayside towers to talk to one another at any time. The conductor in the cabin (caboose) car and the engineer in the locomotive cab may also talk to each other at will, and the crew of one train may communicate with the crew of another several miles distant (not more than four miles).

• **How It Works**—The new system utilizes high frequency alternating electric currents transmitted along the rails and also along wires on poles parallel to the tracks. These are called "carrier" currents. Impulses of the telephone currents are produced by talking into the telephone instruments.

By means of apparatus attached to the locomotives and cabin cars, these telephone currents are received into and sent out from trains, and their electrical impulses are transformed back into sound by the telephone instruments at the receiving end, whether on a train or in a wayside tower.

• **Operating Gains**—A considerable part of the gain in operating efficiency results from the elimination of train stops, formerly required to permit train crews to get in touch with block operators through telephones installed at the track-side.

When any change in operating conditions occurs, all persons concerned can



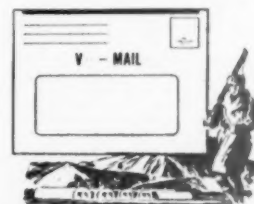
One month CLOSER to home...

Letters used to take six long weeks . . . anything might have happened at home—all he could do was worry! . . . Now letters come in twelve days, bring home a month closer . . . just because the people at home . . .

Use V-MAIL

V-Mail flies, is the quickest way possible to get letters overseas to servicemen. A letter on the V-Mail form is photographed on a film strip. A single film carries hundreds of letters. A single plane carries thousands of film strips! At the process point nearest its destination, your letter is reproduced exactly as you wrote it, sealed and delivered, a private, personal communication . . . V-Mail goes as far in hours as ordinary mail on ships goes in days!

The government offers this special service for the sole purpose of



expediting mail to the armed forces overseas. Use V-Mail lest servicemen suffer from the lack of letters. Use V-Mail because it makes every letter you write mean more to the man who gets it sooner!

The postoffice or your RFD carrier will supply V-Mail forms. You can buy them at your stationer's. Or we will send six sample forms with our compliments. Address . . .



PITNEY-BOWES POSTAGE METER CO.

1469 Pacific Street, Stamford, Conn.

Originators of Metered Mail, world's largest manufacturers of Postage Meters, which print postage for business mail . . . now devoted to war production.



now be advised on the instant, reducing delays which would occur if the old wayside telephones had to be used.

• **Fears Bugs in Radio**—Railroad men are not excited about, but are interested in, straight radio as a means of speeding service or as a safety device. The Assn. of American Railroads remains unenthusiastic. The bugs aren't out of the sets, it asserts, and—more to the point—a satisfactory way of integrating radio with present signal systems hasn't been found.

William S. Halstead, president of the Halstead Traffic Communications Corp., admits this, too. His engineers have spent upwards of \$250,000 on the problem thus far, privately financed but with railroad and Army cooperation.

• **Predicts Tower of Babel**—Railroad officials are intensely interested in two-way radio for use in railroad yards because it saves time and speeds up classification of cars. "Wired radio" installations are in operation at the big Proviso yards of the Chicago & Northwestern in West Chicago; at Sharonville, Ohio (N. Y. Central); Columbus, Ohio (Pennsylvania); and DeCoursey, Ky. (Louisville & Nashville).

But the railroads say main-line use of radio is another story.

Suppose, says Col. Robert S. Henry of A.A.R., 25 trains are going north and 30 trains are traveling south between New York and Washington.

Suppose, he says, all the conductors or engineers want to talk with a dispatcher in Philadelphia.

It would be, the colonel believes, like trying to call Gimbel's if they had a sale of nylons advertised.

Workers' Meals

In-plant feeding will be expanded this year, as WFA and other agencies seek cooperation of management and labor.

In-plant feeding of workers in war industry during two years of mounting production has ranged from catch-as-catch-can cold drinks and chocolate bars to well-planned meals at cost.

• **Program Expanding**—This year the War Food Administration, as the responsible agency, is making provision for eating facilities for 3,400,000 workers plus the 6,600,000 now being fed. The program, if achieved, will feed about 80% of workers in manufacturing.

Because 7% of the 12,508 plants having more than 2,500 workers employ more than half of the 12,630,000 persons in manufacturing, this concentration makes WFA's job easier. And the interagency committee set up last September assures the cooperation of WPB, OPA, War and Navy departments, the Maritime Commission, Public Health Service, and the War Manpower Commission.

• **A Growing Business**—The results of their combined efforts will mean a boom for industrial feeding contractors—of whom there are now 300 to 500 in a business that was hardly started in the U. S. before the war.

The need for adequate feeding, either in the plant or close by, is caused by wartime complications: workers who

left their homes to take jobs in strange cities, plants located in outlying suburbs or near villages where restaurants are few, swing and graveyard shifts, food rationing, longer time needed to buy groceries, women who have left kitchens to take war jobs, workers living in trailers or rooms, and people who travel fast or arrive breakfastless for other reasons.

• **Solution Delayed**—The problem became apparent early in the war, but a concerted attack on it was delayed by the pressure of more insistent problems.

Nutritional deficiency is common but can be illustrated by one example. A survey in 1942 of a California aircraft plant showed that half the diets were poor in vegetables, citrus fruits, and tomatoes, one-third were deficient in milk, and one-fourth low in eggs.

Older men were found to eat less intelligently than the young men (who are now mainly out of industry), and women's diets were worst of all. Now that men past 38 and women (there are almost 4,000,000 in manufacturing) are increasing in number among workers, the feeding job is more important.

• **More Rationed Food**—In-plant feeding is a way of supplying more rationed food to workers who need it, and this is one of the main goals. A shipyard worker may need 4,500 calories a day. Under rationing he gets only 2,800. Through institutional allowances, OPA can see that he gets what he needs.

The main responsibility for adequate meals rests with management, says WFA, but the first cooperation it seeks is with labor, because labor is the consumer who has to be satisfied. Labor unions are heartily back of the idea.

• **Good Selling Job**—WFA's food consultants have a graphic way of selling cafeterias to management. They show them the power curve of the plant. If it slumps half an hour before mealtime, there is an indication of either whistle-jumping or fatigue. The necessity of whistle-jumping to get in line for food or to walk long distances to a canteen is something management is usually eager to remedy. The same goes for fatigue from improper food.

Morale in well-fed workers, moreover, is higher and results in fewer quits and requests for transfers.

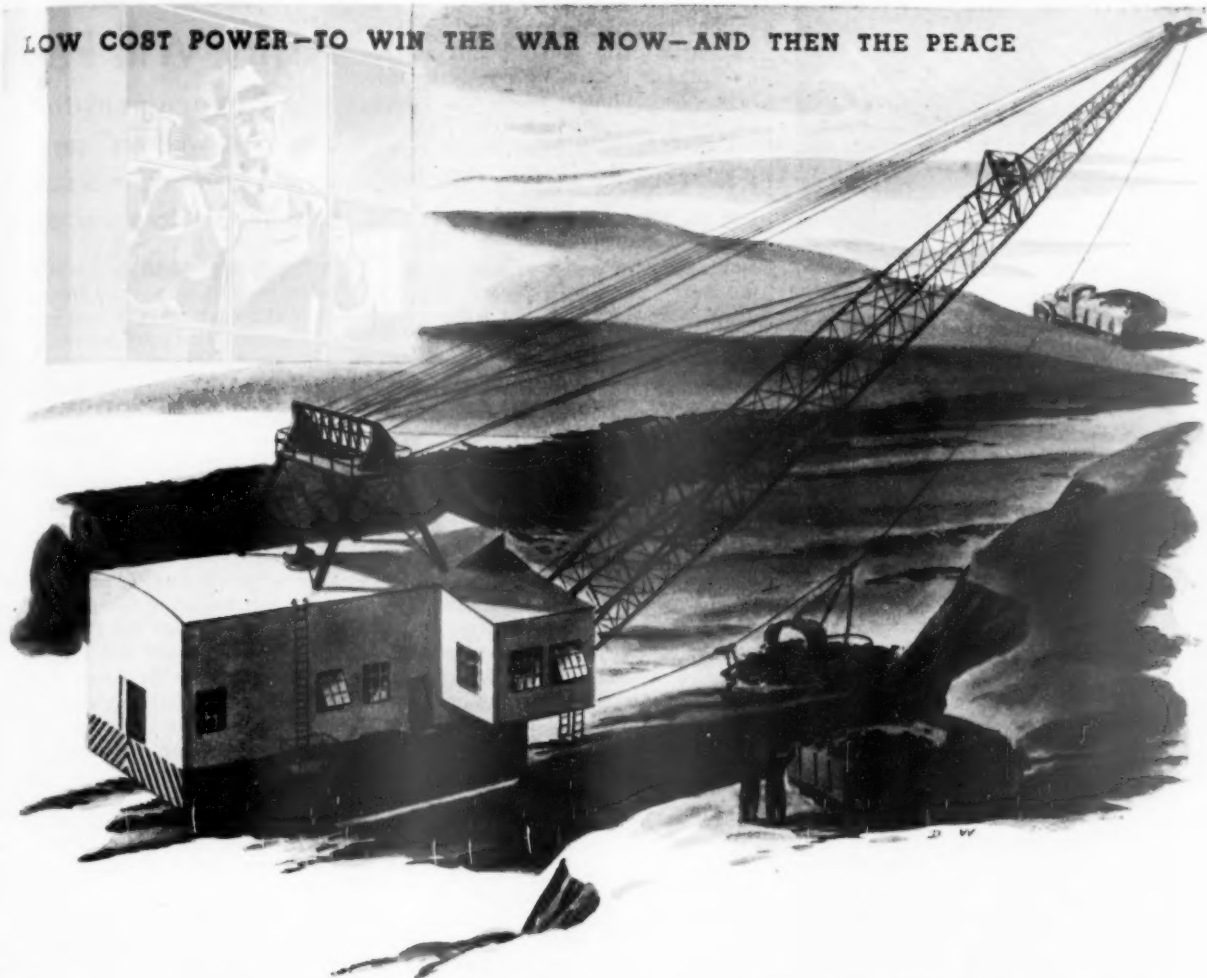
• **Surveys Are Made**—Here is the way the government plan works. Labor, or management, or a war agency buying the end product, or perhaps the manpower utilization consultants of WMC find that poor feeding is hampering production. They request assistance from the proper regional Food Distribution Administration office in New York, Chicago, Atlanta, Dallas, or San Francisco. A quick survey is made and a recommendation follows.

WPB is informed what equipment



One of the most novel in-plant restaurants selling cheap nutritious food is an old Pullman diner that serves some 900 workers at the Puget Sound Navy Yard.

LOW COST POWER—TO WIN THE WAR NOW—AND THEN THE PEACE



Paul Bunyan's Coal Shovel

THIS 350-ton giant could easily qualify as Paul Bunyan's coal shovel. Forty-five feet high, with a 160-foot reach and a 6-cubic-yard bite, it scrapes up as much as 1000 tons a day.

This giant among shovels walks on two pontoon feet, each twenty-seven feet long and five feet wide. It picks them up, shoves them forward and sets them down twice a minute, seven feet in a stride. The power for walking as well as the power for digging, comes from a six-cylinder Cooper-Bessemer diesel engine.

Technically known as a walking drag-line, this huge machine is now operating in a western Pennsylvania strip mining operation. It works where coal lies near the surface of the ground. Today it is furnishing fuel for steel mills that

are helping to win the war. Tomorrow it will help America to win the peace.

Today Cooper-Bessemer concentrates on building long-lived, reliable diesels, compressors, gas engines and other products for war. After Victory, constantly improved Cooper-Bessemer equipment will be available to meet the demand for greater efficiency and lower-cost horsepower.

THE
Cooper-Bessemer
CORPORATION
Mt. Vernon, Ohio • Grove City, Pa.

BUILDERS OF DEPENDABLE ENGINES FOR 111 YEARS



500,000 RUB-R-LITES now in use on the battle-boats and battle fronts of the world have proved this amazing flashlight is: Absolutely waterproof! Damage-proof (you simply can't break it!) Electric-proof! Has unfailing switch action (always turns on and off!)

Immediate delivery; but entire production now restricted to War Orders. Procurement Officers should check with their regular wholesale sources; or write us direct for detailed information.

**LENNAN
LIGHTS**

WAR-APPROVED FLASHLIGHTS IN
RUBBER • METAL • PLASTIC

2654 FLETCHER DRIVE • LOS ANGELES 26

will be needed for cafeterias. OPA is told what extra ration points are required. The Federal Works Agency may help with buildings. Procurement agencies have been instructed by President Roosevelt to make funds available and, if necessary, the Defense Plant Corp. can lend money.

• **WFA Suggestions**—The cafeteria units recommended by WFA serve and seat 100 persons in twelve minutes at tables for four. Workers can get complete meals with two choices of entree, vegetable, and dessert, or supplemental food to add to lunches they bring. Plate lunches have been found to cut costs. The price is usually under 50¢.

Food servers are recruited from the plant workers by offering them a small bonus and free meal. They quit their regular job half an hour before meal-time to clean up for the culinary work. WMC aids in getting the permanent kitchen workers required.

• **Cuts Down Time**—Shipyards favor small units scattered throughout the plant area for midshift meals because they cut down the time and distance traveled by a worker going to lunch. Where necessary, food wagons are resorted to. But a big cafeteria outside the plant is especially useful for breakfasts.

WPB has set aside sufficient equipment for feeding 800,000 persons for the first quarter of 1944. Of the 3,400,000 new customers to be fed this year, 200,000 will be taken care of in approved commercial establishments outside the plant.

Army Will Pay

Government-financed check on workers' cars is designed to maintain steady flow of materials from war plants.

Personnel transportation is an Army name for getting workers from home to work and back again. It's so vital to war production that, wherever a critical transportation situation exists, the Army stands ready to pay for a transportation department in any plant that is manufacturing for the War Dept.

• **Pay for Inspection**—Some transportation contracts provide payments to cover periodic inspection of automobiles, including tires (visual checkup only), brakes, battery, oil and grease, cooling system, paint, and general condition—once or twice a year for A card holders, two or three times for B and C cards.

Average cost will not exceed \$3 per worker per year, the Army figures. Individual plant contracts signed recently pay from \$2.19 to about \$8. One West Coast aircraft company contract totals about \$350,000 a year. In one Army Ordnance district, contracts signed to date average \$2.45 per worker.

• **Cost Comes Down**—The contract which the Army approved covering the Westinghouse Electric arrangement with Mansfield area repair shops provides Army financing amounting to \$4.35 per employee for an estimated



Under the War Food Administration's in-plant feeding program, worker Joe Smith gets all the calories and vitamins he needs in the 40¢ blue-plate special.

How many
"VICTORY" JOBS
 will result from



increased use of

Electric Energy

It's an exciting postwar picture any way you figure it. Expanded use of electricity is one of the brightest fields to count on for jobs for our returning service men.

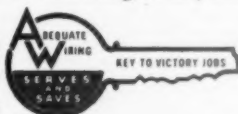
Think of the employment that will result from electronics alone, which includes radio, television and countless industrial and home applications. Or consider air conditioning, heating, cooking, lighting, refrigeration. As new and finer electrical products are developed, employment all along the line will be created . . . within the elec-

trical industry, and in every other industry.

But one thing is self-evident. Wiring will have to come first. Adequate wiring will be essential to full utilization of the electrical possibilities of the future. Now—in advance—is the time to plan for it. By all means, give it full weight in your postwar thinking.

Unwired planning will cost you a whole lot more than *planned wiring!* 44223

HELP BRING VICTORY SOONER . . . BUY MORE WAR BONDS.

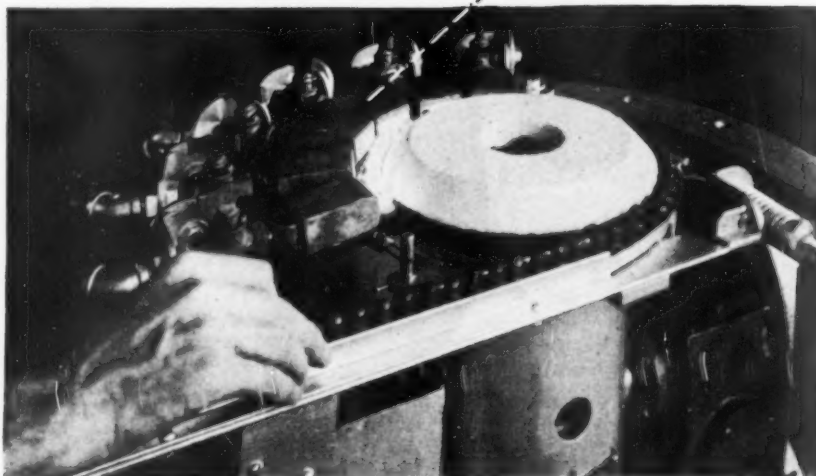


ANACONDA WIRE & CABLE COMPANY

25 Broadway, New York 4 . . . Sales Offices in Principal Cities

Electrical Wires and Cables of Copper are the Life Lines of our Nation

*Maybe Gas
"furnaceless heating"
can fit into your
postwar production!*



One significant new force behind industry's mounting production of war armaments is Gas direct flame treating, or "furnaceless heating," which has already been widely incorporated in straight-line production, so that heat-treating becomes an integral part of the manufacturing process.

For instance, it is possible now to flame harden the spherical bearing end of airplane pushrod fitments in continuous production at a rate of 600 units per hour—in a machine no larger than a floor-model dictaphone.

The illustrated equipment was developed mainly for the automotive and aviation industries, but similar

machine-tools-for-heat-treatment have been made to lick other heat-treating problems in dozens of other types of war plants. This new technique—one of the many advances made by Gas since Pearl Harbor—offers interesting possibilities for post-war manufacturing because it both speeds production and lowers costs.

It will pay you to look into direct-flame treating, and other industrial Gas process heating techniques. Call your Gas company for full information.

AMERICAN GAS ASSOCIATION
INDUSTRIAL AND COMMERCIAL
GAS SECTION
420 LEXINGTON AVE., NEW YORK 17, N.Y.

THE TREND IS TO GAS

FOR ALL
INDUSTRIAL HEATING

3,200 workers in 1942, and \$3.70 per employee for an estimated 4,400 workers in 1943.

The two largest and fastest growing groups of drivers, Westinghouse covered through a survey at Mansfield are farmers and industrial workers. They own the oldest cars with the smoothest tires, and depend on the most. Average distance from home to work for the Mansfield workers was found to be 4.97 miles; average car driving per year was 10,375 miles and 14% of the employees lived more than ten miles from the plant.

• **Evenly Distributed**—Car inspection and repair work are scheduled with a view to supplying all repair shops at Mansfield with an even flow of work so that workers will experience no minimum delay. A car-owning worker must get for an "inspection order" before he takes his machine in for clinical observation. The shop reports the result on a quadruplicate form. Westinghouse gets two copies, one for invoice, the other for record, the car owner keeps one, and the repair shop keeps the fourth.

Corn Is Scarce

WFA to be in market for 52,000,000 bu. as reserves hit low level. Supply cut by small crops, heavy hog feeding.

The War Food Administration soon will be in the market for 52,000,000 bu. of corn for war uses in compliance with requests of the War Production Board to accumulate reserves for corn processors (BW—Oct. 23 '43, p. 78).

• **Stockpile Is Low**—Currently, WFA owns little more than 1,000,000 bu., contrasted with 26,400,000 bu. at this time last year. The agency will try to accumulate additional stocks as soon as the moisture content of market grain is sufficiently low to permit safe storage—probably in April.

Last season, farmers were induced to market 35,000,000 bu. for processors, under guarantee by WFA to pay any subsequent advance in ceiling prices. Later, about 7,500,000 bu. of terminal elevator stocks also were requisitioned.

• **Requisitioning Fails**—A second but abortive effort was made to induce farmers to sell additional corn. The requisitioning technique also failed in that most of the requisitioned corn already belonged to processors and was turned back to them.

This season, WFA will ask terminal elevator operators to set aside a part of their stocks for government account. Success of the plan will depend, how-

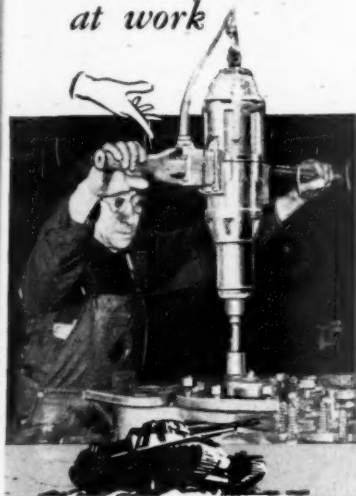
Here's why American Free Enterprise works

Shown on this page are typical examples of how war producers have used their heads and Black & Decker Portable Electric Tools to step up war production . . . of how American producer, tool manufacturer and tool distributor have *voluntarily* pooled their efforts, ingenuity and experience in this common cause.

Such teamwork . . . helped build America into the production giant she was before the war. And this same teamwork proves *now* . . . in constantly increasing production of better and better fighting equipment . . . that only through Free Enterprise could America have become the arsenal of democracy.

This same voluntary system of putting brains and brawn and money and machinery to work must be preserved . . . to keep intact the America we believe in, after Victory is won. The better things to come in our postwar world . . . for which American industry of its own volition is projecting plans now . . . will not be possible if the initiative of Free Enterprise is stifled or destroyed. The Black & Decker Mfg. Co., Dept. 502, Towson-4, Maryland.

Here's Free Enterprise at work



Teamwork Sets Up Manufacturer's Production and Keeps It Going

A heavy equipment manufacturer needed help in setting up a new war production line. Black & Decker helped him select tools of the right speed and capacity for top efficiency—Electric Nut Runners, Drills, Stud Setters, Screwdrivers and Grinders to fit each operation. The manufacturer wrote: "Thanks for the assistance—it helped us get under way much faster. And we especially appreciate your prompt repair and parts service. Service in tooling up—service in keeping tools on the job—that's Free Enterprise at work, to bring the day of Victory sooner."



How a Black & Decker Distributor Helped Elco Build P.T.'s Faster

When Electric Boat Company needed help in tooling for mass production of P.T.'s, they called their Black & Decker Distributor. With Elco's shop foreman, the distributor charted Elco's course: Black & Decker Electric Saws, Drills, Nut Runners, Screwdrivers, Sanders, to speed thousands of "repeat operations" in P.T. construction. Freedom of Enterprise makes such teamwork possible—and such teamwork makes Free Enterprise work!



Ingenuity and Initiative Convert Auto Repair Shop for War Work

This 9-man auto repair shop's Black & Decker Valve Refacer now does close tolerance grinding on bomb parts. Nobody ordered the shop owner to convert—or showed him how to adapt his peacetime Refacer to an entirely new and different use. But initiative and ingenuity, born of Free Enterprise, resulted in a successful adaptation that has doubled production, saved man hours and turned out amazingly accurate work.

LEADING DISTRIBUTORS  EVERYWHERE SELL

Black & Decker

PORTABLE ELECTRIC TOOLS

NEW STEAM PEELER
speeds production,
saves manpower,
and reduces costs



This new Pfaudler development literally skins root vegetables, such as white potatoes, sweet potatoes, beets, carrots, etc., as clean as a whistle. No chemicals or abrasives are required, whatsoever.

PFAUDLER ENGINEERING SOLVED THE PROBLEM

The peeling of root vegetables has always been a problem to food processors. Most methods were either inadequate or wasted too much of the edible portions. Presented with this problem, Pfaudler Engineers developed the Steam Contour Peeler. In it the vegetables are exposed to steam under pressure. This loosens the skins which are removed by high pressure jets of water as the vegetables are carried along by mechanical fingers on a series of rubber rollers. No chemicals or abrasives are used.

SAVES MANPOWER, REDUCES COSTS

Only one operator is required to handle as much as 4,000 lbs. of white potatoes per hour. Some machines have paid for themselves within a month.

This is just one example of Pfaudler Engineering . . . one development of the many made for the food, chemical, drug, dairy and beverage industries. Why not submit your problem to Pfaudler Engineers? The Pfaudler Co., Rochester 4, N.Y.

PFAUDLER
Engineered glass-lined and stainless steel equipment

ever, upon willingness of farmers to sell corn freely at current ceilings.

• **Granaries Depleted**—The movement of corn to primary markets has slowed since the beginning of the year. The total movement since last October has been about 10% smaller than during the like period a year earlier.

At the same time, less corn remains on the farms this winter than last, because (1) the supply was smaller to begin with, and (2) hog feeding in the Corn Belt has been of record size.

The demand for feed grain will be smaller this summer than last because the livestock population is reduced. Nevertheless, many farmers may hold corn for higher prices—as they did last season—on the expectation that ceilings will be higher on the 1944 crop corn.

• **Wheat Being Bought**—Milling wheat also is being stockpiled by WFA in steel bins of the Commodity Credit Corp. in the Dakotas, Minnesota, Nebraska, and Kansas. Available bin capacity is 60,000,000 bu.

The wheat will supplement 90,000,000 bu. of milling and feeding quality wheat now owned by CCC, plus 40,000,000 bu. of feed wheat to be bought from Canada through May 15.

Prices for the milling wheat are on the basis of terminal ceilings less freight and handling charges for bin storage.

• **Wheat Loans Drop**—Stated reason for the buying of milling wheat is to relieve pressure upon transportation and terminal storage facilities; actually, it provides a market at current ceilings to farmers unwilling to put the grain under

government loan at 85% of par prices.

Little wheat has been going into government loan this season—less than 130,000,000 bu. of 1943 crop wheat through Feb. 1, as compared with 400,000,000 bu. of 1942 crop wheat to same date last year. Redemptions of 1943 wheat have been 47,000,000 bu.

• **Smallest Loan Stocks**—Total government loan stocks of wheat on Feb. 1 were the smallest (122,000,000 bu.) since the beginning of the war. Last year at that time the loan stocks totaled 431,000,000 bu.

Wheat has flowed out of the CCC granary at a faster clip than replacement have come in. Feed wheat sales since last July 1 have totaled 230,000,000 bu., whereas purchases of Canadian and United States grain during the period totaled less than 150,000,000 bu.

Feed wheat sales now are being reduced by curtailed allocation for emergency needs of dairy and poultry producers (BW—Jan. 29 '44, p. 39).

• **Farmers Complain**—The milling wheat purchase order is largely the result of complaints by farmers in the northern plains that the recent diversion of 200 boxcars a day from the U. S. to haul feed wheat from Canada left them without sufficient transportation to market remaining farm stocks.

Farm stocks of wheat are considerably smaller than at this time last year; nevertheless, WFA has agreed to reduce the diversion of cars to 100 a day for 30 days, but has extended the period

VETERANS' TRIAL RACE

Whether or not soldiers get the vote this year, Maj. Carl E. Wuertele of Denver will get some votes. Dean Gillespie, a Denver business man, will get some others. Voters of their home district will decide, on March 7, which of these two men will succeed the late Rep. Lawrence Lewis in Congress. Because Maj. Wuertele is the first veteran of this war to run for Congress, his balance of votes may indicate what may be expected, in political weight, from other veterans over the years ahead. Some, like Maj. Wuertele, will run for office—even as early as this November. More will be content to make their influence felt at the ballot box. Maj. Wuertele, 30, retired from the Pacific war zone because of wounds, is a former college athlete, veteran of 205 bombing missions against the Japs and of the American



defense of Pearl Harbor. He is a Democrat. His opponent, Gillespie, is a regional White Motor dealer, originator of a plywood 260-passenger double-deck bus (BW—Dec. 19 '42, p. 18). Until Maj. Wuertele got in the race, Gillespie was the odds-on favorite

HE DRIVES A WEAPON

HERE'S A FIGHTER . . . the man in the cab of the truck. A fighter. On wheels. Through dismal days and storm-tossed nights he keeps his cargo rolling, whether it's two tons or twenty.

He's at it from dawn to dark and back again. More miles. More hours. More tonnage. More work than ever before. Proving, day after day on the highway, that a truck line is the shortest distance between two points!

He speeds food to market . . . he rushes vital war material from mine to mill, from sub-contractor to assembler, from factory to ordnance depot.

More than fifty thousand American communities would be stranded without the man in the cab of the truck. They would have no other way to get their goods out . . . no way to get goods in.

The truck he drives is two years old, at least. More likely it's six. But he carries on, in spite of shortages—of trucks, of repair parts, of gasoline, of tires, of manpower—shortages of nearly everything he needs in his business except the will to win. He drives a weapon. For his business is the same as the business of the man in uniform . . . it is the business of Victory.

A good share of the trucks which keep America's highways alive with the essential traffic of war are Internationals. Performance made them the *largest-selling heavy-duty trucks on the market*. And the same toughness, the same dependability, the same economy of operation that put them in the lead in the days of peace keeps them there in these days of war.

NEW TRUCKS—LIMITED!

The government has authorized the manufacture of a limited quantity of trucks for civilian hauling in essential occupations. For your new truck, see your International Dealer or Branch right away, and get valuable help in making out your application. Don't delay!

INTERNATIONAL
HARVESTER COMPANY
180 North Michigan Avenue
Chicago 1, Illinois



KEEP YOUR OLD TRUCKS ROLLING

It's a big job trucks are doing—a job they must keep on doing. That means your trucks must be maintained, must be kept in tip-top shape. International civilian truck service—the nation's *largest company-owned truck service organization*—is now a wartime service, more alert than ever. No matter what your make or model of truck, let International Dealers and Branches keep your trucks rolling on the warpath to Victory.

And boost highway maintenance in your community!



INTERNATIONAL Trucks



Let it speak for itself

What goes on? A deisobutanizer tower is being erected.

What's it for? To boost the 100-octane output of a refinery.

Which one? Where? How much of a boost? Sorry... can't tell you. Those might be military secrets. We'll let the job speak for itself later, when our bombers and fighters unleash still more devastating air attacks.

Passing along inside war production facts threatens Uncle Sam's security just as surely as revealing troop locations, ship movements or other "confidential" information for which the enemy never stops listening. We all should *think* before we talk. Let's remember that careless

words may easily cost lives.

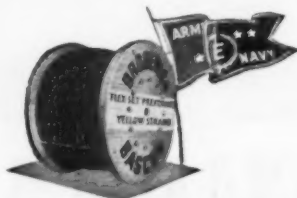
In contrast with guarded aviation fuel plans, facts about Yellow Strand *Preformed Wire Rope* and *Yellow Strand Braided Safety Slings* (shown lifting the tower above) are a wide-open book known to thousands in construction, manufacturing, shipbuilding and other industries. And they can be known to thousands more with profit to the war effort. Separately and together, rope and slings bring toughness, flexibility, high work capacity and long life to the saving of time, manpower, money.

You can get Yellow Strand performance details from a nearby distributor, branch or factory—and promptly. Inquire now.

Broderick & Bascom Rope Co., St. Louis

Branches: New York, Chicago, Houston, Portland, Seattle. Factories: St. Louis, Seattle, Peoria

**YELLOW
STRAND**



PREFORMED WIRE ROPE • BRAIDED SAFETY SLINGS

in which it will bring in wheat by rail from Canada until May 15.

The bulk of the Canadian grain—some 40,000,000 bu.—will be delivered at Duluth, Minn., for movement by water when lake navigation opens this spring.

Farm Values Rise

Aggregate worth of U.S. farms is up to nine billions. FSA acts to curb speculation, but is helpless with individual lenders.

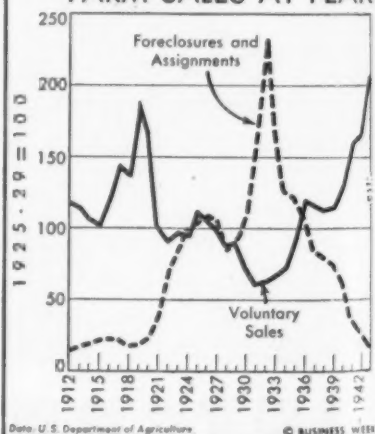
Farm land values are rising at the fastest clip since the boom of 1919-20. In the past two years, it is estimated, values of farms in the United States have increased by more than nine billion dollars, from \$36,600,000,000 at the beginning of 1942 to \$46,000,000,000 now. And there's no sign of abatement.

• **Officials Concerned**—Present values are 20 billions short of the inflationary peak of 1920, but government officials are concerned lest they get out of hand. Only the Farm Security Administration has done anything about the rise, but at least two efforts have been made in Congress to curb speculative buying of farms.

FSA has instructed its agents to deny loans for the purchase of farms at inflated values. The agency has \$30,000,000 available this year for loans, but it will be limited to borrowers who buy land appraised favorably on the basis of long-time earning capacity.

• **Increases Average 27%**—For the United States as a whole, the increase in farm land values has averaged about 27% above those prevailing in the pre-war period, 1935-39, according to FSA's latest survey. The biggest rises were indicated in Kentucky (58%),

FARM SALES AT PEAK



Shells

THAT SELL SURRENDER



C-r-a-s-h! The shell explodes in mid-air . . . and a shower of leaflets flutters down upon a surprised enemy. They tell a story of certain defeat . . . promise safe conduct, food and medicine to those who surrender. Effective? Authorities state that 80% of the Axis prisoners taken in North Africa and Sicily admitted they were influenced to surrender by Allied propaganda.

This bloodless warfare is being waged by the Office of War Information in collaboration with the Army, and at their outposts all over the world this propaganda literature is being produced on Davidson Dual Duplicators. They were chosen by the O.W.I. for their speed, versatility, simplicity of operation, and dependability even under adverse conditions.

Remember . . . the Davidson is the duplicator that reproduces from offset plates, type, electrotypes, and rubber plates, permitting you to select the method best suited to each job. And only a Davidson can give you *all* this in *one* machine.

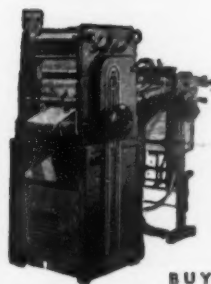
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Davidson

DUAL DUPLICATOR

AK
1942
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1944

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BYRON WESTON CO. LINEN RECORD, EXTRA NO. 1 100% WINCHESTER BOND 50% HOLMESDALE BOND 75% WINCHESTER BOND 100% DEFIANCE BOND EXTRA NO. 1 100% WESTON'S BOND EXTRA NO. 1 100% WINCHESTER INDEX 50% WINCHESTER INDEX 100%



*If YOURS are worth keeping
keep them on . . .*

WESTON PAPERS

Every important business record—production, distribution, financial, legal, insurance—needs the resistance to time and hard handling found in the priceless public records of property and probate—records almost invariably entrusted to a WESTON cotton fibre content paper. Your supplier endorses this practical rule for record protection.

WESTON WARTIME PAPER WORK

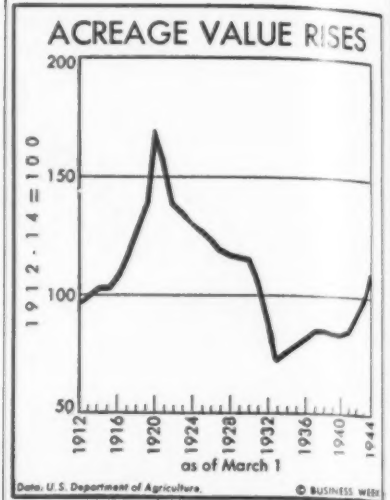
Much of the paper industry's great development and production facilities has been concentrated upon vital war applications. The Weston mills and laboratory are in the thick of this activity—creating and producing papers employed by the U.S. Government, the Army, the Navy and our industry. The experience gained from this intensive effort will not be lost. You can be certain it will be turned to good account for all users of Weston papers.

*If it's worth keeping
keep it on a
WESTON paper*

BYRON WESTON COMPANY
DALTON, MASSACHUSETTS

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Ohio (50%), Tennessee, South Carolina, Georgia, Montana, Wyoming, and Colorado (more than 40%). Regionally, the increases ranged from 10% in New England to almost 50% in the east south central states.

Some measure of the rise in values is apparent in government figures for farm mortgages recorded in the third quarter of 1943. The total number recorded during that period in the United States was 63,000, about 18% more than were filed in the corresponding period of 1942. But the total dollar value of these recordings was \$192,000,000, or 33% greater than the third quarter of 1942.

• **More on the Line**—Individual mortgages thus were larger, on the average. Also it has been established that farm buyers are laying much more cash on the line than in normal times and are accepting shorter-term mortgages. Before the present boom, down payments of from 35% to 40% were considered large; now, according to a recent check of bankers in the Chicago Federal Reserve District, down payments average 46% in the Midwest. And where the typical mortgage of prewar years was written for 15 years, today's buyer expects to pay it off in something closer to nine.

Farm Credit Administration officials acknowledge their helplessness to curb runaway land prices. They can and do control the lending of government funds for farm mortgages, but they cannot, under existing regulations, exert much influence on individual lenders.

• **Leading the Field**—Individual loans in the third quarter of 1943, as compared with the third quarter of 1942, were up 23% in number, 30% in average size, and 60% in total amount. And they led all other forms of loans.

To discourage speculation, FCA favors the bill offered by Sen. Guy M.

Gillette which would require farm land buyers to pay a 90% tax on the profits they realize from a sale within two years of the purchase—the tax diminishing from year to year until it vanishes at the end of six years. But the bill is buried in committee, as is another Gillette proposal designed to saddle a 10% tax on all land transactions.

• **Federal Loans Drop**—In contrast with the rise in individual loans, federal land bank loans show a sharp net drop. Farm mortgage debt held by these land banks and by the land bank commissioner was reduced by approximately \$335,000,000 in 1943 to about \$1,770,000,000, the lowest level since 1933. During the same period, the "future payments fund" deposited by borrowers as a reserve against mortgage investments not yet due increased \$8,000,000 to \$25,723,000.

Preliminary figures indicate that the aggregate of outstanding farm mortgages held by lenders other than the federal land banks at the beginning of 1943 was: life insurance companies \$891,000,000; commercial banks, \$477,000,000 or less; Farm Security Administration, \$164,000,000; and individuals \$2,774,000,000.

IRRADIATING THE CHICKS

More chickens can be grown in less time by using ultraviolet ray lamps in hatcheries, Westinghouse Electric & Mfg. Co.'s lamp division has announced after a year's research on the subject.

Infectious organisms which cause poultry diseases, such as mycosis and brooder pneumonia, are killed by the lamps' bactericidal rays, and, in addition, the small amount of vitamin D generated by the lamps advances the growing time of young birds to marketing age by as much as three weeks. Westinghouse's short-wave, ultraviolet ray lamps—thin tubes—are called Sterilamps.

The company's research branch conducted a carefully controlled test in two battery brooding houses, which were identical except that one was equipped with Sterilamps. In the lamp-equipped house, there were 50% fewer culls and runts and a 68% lower mortality rate. The researchers found it possible to raise 1,000 pullets per battery brooder in the irradiated building, as against 750 in the brooder without lamps.

Heretofore, the practice in large hatcheries has been to expose poultry to high intensities of vitamin D, or antirachitic, wavelengths for short periods to cut down the disease rate. Use of Sterilamps to give continual irradiation will cut out the need for such "doses" and insure the growth of more and healthier chickens, the Westinghouse scientists say.



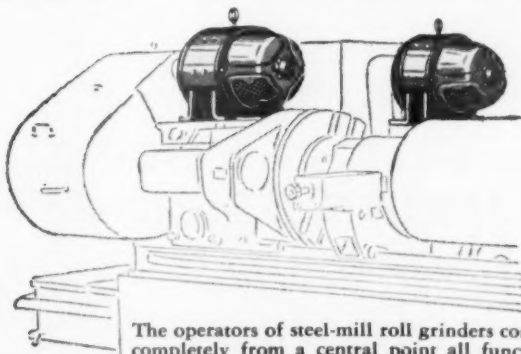
CONTROL!



Electric motor-drive, properly applied, can be used not only to supply power but to *control* a wide variety of production operations—*electrically* rather than mechanically. The results, in improved speed and quality of work, simplified design and reduced costs are frequently remarkable.

This control is accomplished through characteristics that are inherent in Reliance Electric Motor-Drive. Starting, acceleration and speed changes are simply and effectively controlled, automatic reversal can be provided at any desired point in a cycle of operations, tension can be properly and constantly maintained in the processing of such materials as metals, paper and cloth.

The "know how" which enables Reliance men to offer constructive help in working out improvements in machine design or production processes comes from applying electric motor-drive in many ways in many industries. It will pay you to take advantage of their experience.



The operators of steel-mill roll grinders control completely from a central point all functions of their huge machines, many of which are powered by as many as 9 Reliance Motors.

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*Better Fasteners
for you TODAY and TOMORROW*

because of
**Oliver's SKILLED PERSONNEL and
SPECIALIZED MACHINERY**

The accuracy and uniformity of Oliver bolts, nuts and rivets comes from a combination of careful planning, skilled personnel and modern, specialized machinery. To the user of industrial fasteners, these qualities mean greater dependability, faster assembly, lower costs.

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WAR BUSINESS CHECKLIST

A digest of new federal regulations, affecting priorities, price control, and transportation

Increased Civilian Supply

Because of improved copper and copper-base alloy supplies, WPB has revoked Order L-106 prohibiting the use of this metal in the production of automobile radiators, gaskets, fuel and oil lines, brake and clutch lining rivets, and other essential parts. . . . WPB has announced that a limited number of domestic electric ranges will be made available for essential civilian needs in the third and fourth quarters of 1944.

Relaxation of Priorities

Manufacturers of vitamin A or D oils may have all the rationed fats and oils they need to make these products, as a result of OPA's Amendment 107, Ration Order 16. . . . To produce additional quantities of upper leather, tanners are allowed to increase their soakings of cattlehide under WPB Direction 46 of Conservation Order M-311.

Tires and Tubes

A comprehensive procedure for the allocation among claimant agencies of truck, bus, tractor-implement, and industrial tires

PAPER FOR VICTORY

Important war business for everybody is the business of paper-saving.

The War Production Board is behind a hard-hitting campaign to save for war uses a million tons of the paper and paperboard that normally feed the luxurious American appetite for this commodity.

An over-all reminder that "Paper Packs a War Punch" is being supplemented by such slogans as: "Make Each Piece Stretch," for business paper users; "Share the Printed Word," for publishers; "Discourage Useless Wrappings," for retailers; "Accept Simpler Packaging," for manufacturers.

Cause is the shortage of manpower to cut the timber that is turned into pulp and paper. Effect will be the provision of more paper for the multitudinous demands of modern warfare on the battlefield and on the essential civilian front.

A booklet showing how industry can join in this critical campaign can be obtained from WPB. It was prepared by the War Advertising Council in cooperation with WPB and the Office of War Information—and printed on rejected paper stock.

"Near misses" will never win your battle for tomorrow's markets . . . you'll have to be right "on target".

That goes for your motor applications too, and you'll find the job easier if you'll let us help. For example, the motor drive shown below is right "on target". By incorporating a motor, an electric brake, a mechanical variable speed unit, and a gear reduction . . . all designed and built into one compact integral power unit . . . it provides variable speed at exactly the right range and in addition can be quickly and accurately stopped at exactly the point desired. It mounts neatly on the machine, saves space, saves money and greatly improves the output, safety, appearance and convenience of the equipment.

Probably you will not need exactly the same combination of motor features illustrated below, but the Master line includes motors for every current specification, every type of enclosure, and every type of mounting arrangement . . . in fact, is the most flexible, the most versatile line of motor drives.

Investigate Master's unusual ability to serve you with motors that are right "on target".

THE MASTER ELECTRIC COMPANY • DAYTON 1, OHIO



'NEAR MISS, OR on target'

BUY UNITED STATES WAR BONDS AND STAMPS



A PATTERN FOR PROGRESS

It is a basic belief at Thermoid that no one prospers alone... that success for worker, owner and customer is interdependent; and that employee welfare is governed by individual striving to advance the interests of all.

This concept of a common good by Thermoid men and women is unusual in so large a group. It is that sense of proprietorship and personal responsibility felt by the employee who works alongside the owner's bench or desk. And it is bred, here at Thermoid, by the same intimate employee knowledge and understanding of the business that unifies effort in the small shop. It is fed by sharing problems and profits.

Speaking to every member of the Thermoid family—in annual reports like the one pictured here—President Schluter gives fullest expression to his belief that "employees do a lot of thinking for themselves; and the more a man knows about the thinking behind his job, the more worthy his work will be."

What Thermoid does... what it makes... what it sells—and how and where... what taxes it pays... its wage rates... its earnings... its dividends and reserves... its plans and its problems! All are set forth frankly in the Thermoid Annual Report to Employees as matters of mutually helpful information.

This fuller knowledge of company relationships, with the better understanding of their mutual problems by every worker, is largely responsible for Thermoid's consistent progress. It patterns the cooperation that gets things done RIGHT... that causes Thermoid customers to say: "It's good business to do business with Thermoid."

Thermoid Rubber

DIVISION OF THERMOID COMPANY
TRENTON, NEW JERSEY

DON'T PUT IT OFF 'TIL
TOMORROW—
Buy More War
Bonds Today!

THE THERMOID LINE INCLUDES: TRANSMISSION BELTING • F. H. P. AND MULTIPLE V-BELTS
AND DRIVES • CONVEYOR BELTING • ELEVATOR BELTING • WRAPPED AND MOLDED
HOSE • SHEET PACKINGS • INDUSTRIAL BRAKE LININGS AND FRICTION PRODUCTS •
MOLDED HARD RUBBER AND PLASTIC PRODUCTS

It's good business to do business with Thermoid.

has been announced by Rubber Director Bradley Dewey. It has the effect of applying WPB's Controlled Materials Plan to the production and distribution of these types of tires. Procurement of replacement tires by civilian consumers is not affected.

Wholesalers' inventories of new passenger tires and tubes are increased by a recent OPA action. Eligible wholesalers may obtain an allotment of 200 Grade 1 tires; in addition, they may receive one Grade 1 tire for each \$500 of their 1941 net dollar sales of tires and tubes. One tube will be allowed for each tire allotted. Present inventory held by an applicant will be deducted in computing the allotment. (Amendment 69, Ration Order 1A.)

Manufacturers of bicycle tires or tubes may appeal for adjustments in their ceilings if present levels threaten production. OPA advises. (Amendment 3, Regulation 455.)

Canned Fruits and Vegetables

To meet the needs of the larger number of men overseas, canners must set aside from their 1944 output increased quantities of canned fruits and vegetables for government requirements. The set-aside percentages for 1944 are 70% of a canner's 1942-43 average annual production of fruits and 50% of this amount of canned vegetables. This means 14,000,000 more cases of canned fruits and juices and 35,000,000 more cases of canned vegetables than were required in 1943. Principal increases are in canned apples, fruit cocktail, peaches, pears (Bartlett), lima beans, sweet corn, peas, tomatoes, and tomato juice. The new rates cover contingency reserves ranging from 3% to 7% on various products. (War Food Administration Director Food Distribution Order 22.6.)

Cooperative Dividends

Seven rules have been laid down by OPA under which marketing cooperative associations may pay patronage dividends to their patrons when the dividend plus the original amount paid to the patron comes to more than the ceiling price. Most significant rules: The proportion, figured either in dollars or units, of an association's nonmember business in any fiscal year must be limited to the proportion of nonmember business the association handled during the calendar year 1943 or the fiscal year ending in 1943 (or the first year of the association's existence, if it did not exist through the year 1943); the association must not agree to a patronage dividend of a definite amount or at a specific rate; dividends must be paid only at the end of the fiscal year, or at the end of intervals of at least six months, when the association's books are regularly closed at such intervals. The purpose of this order is to insure that payments are bona fide dividends, and to avoid interfering with normal cooperative marketing methods. (Supplementary Order 84.)

Housing

Under a simplified WPB procedure, after Mar. 1, holders of approved housing applications for privately financed construction will be given blanket authority to construct.

IMPORTANT ANNOUNCEMENT

to All Suppliers of Materials to U. S. Navy, Army, and Army Air Force

New procedure for writing documents required on shipments has been recently officially approved.

HERETOFORE, procedures necessitated multiple writings. For example, shipments to U. S. Navy required writing, (1) Contractor's report of material shipped, packing slip; (2) Contractor's invoice; (3) Government receiver's report; (4) Government inspection report; (5) Government public voucher. This meant five separate writings, five separate checkings, five separate procedures, five separate possibilities for errors and omissions.

Every contractor knows by sad experience how costly errors in documentary data can be. Payments of large sums due contractors have had to be held up, sometimes for months, because of discrepancies and small errors made in transcribing or processing the many duplicate copies needed for distribution.

Revised Method Saves Time, Avoids Errors, Insures Quicker Payments

Now, all five separate forms can be consolidated into one document. The one writing is done by typing or hand-writing on one single sheet. The sheet is a Multilith Systemat master. Placed on a Multilith Duplicating Machine, it reproduces the many facsimiles that are needed, each a legible, accurate, permanent, black-on-white original. This new Multilith Systemat method reduces number of reports, eliminates three typings and one hand-writing operation, and virtually does away with possibilities for error. It saves time and speeds handling at source, at receiving station, and disbursement office.

We urge suppliers to all branches of the armed services to take immediate advantage of this improved and simplified system. All Multigraph offices have full information.



Many other businesses, besides government suppliers, who are writing separate shipping orders, packing slips, shipping labels and invoices, can easily adapt Multilith Systems Duplicating to their procedures. Addressograph-Multigraph Corporation—Cleveland. Sales agencies with service and supply departments in principal cities of the world.

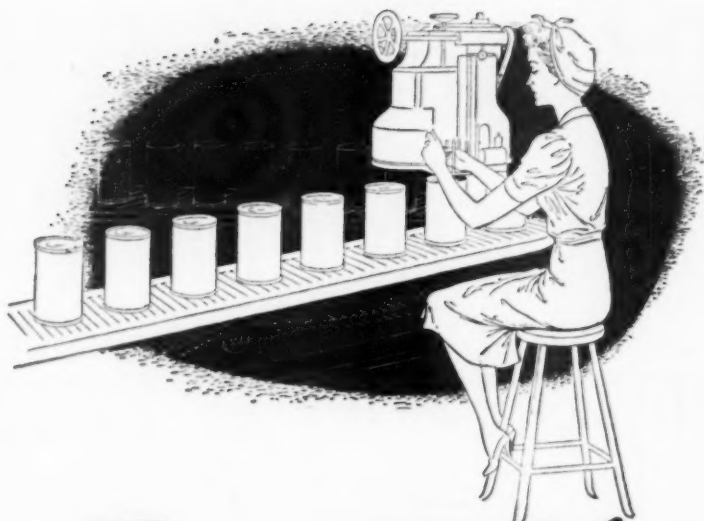
Multigraph

TRADE-MARK REG. U.S. PAT. OFF.

SIMPLIFIED BUSINESS METHODS

Multilith, Systemat and Multigraph are Registered Trade Marks of Addressograph-Multigraph Corporation





It will Help

SPEED FOOD TO YOUR TABLE

Operating at speeds faster than the eye can see, making haste without waste because postwar competition will be keen, you'll find the Torrington Needle Bearing giving new efficiency and economy to packaging and conveying equipment.

Advantages of anti-friction Needle Bearings accrue to machinery builders and users alike... through ease of lubrication, long service life, reduced friction which means lower operating costs. And the bearing's light weight, small size and compact design contribute those same features to the equipment in which it is used.

How do we know? Because right now hundreds of thousands of Needle Bearings are at work, demonstrating their value in terms of better performance and greater efficiency in the planes, and tanks, and ships, and trucks used by our forces the world over!

It is an unusual combination of advantages that has made the Needle Bearing so widely used so quickly. Here are the principal features that will interest every manufacturer who uses bearings:



- | | |
|-----------------------|--------------------------|
| 1. Small size | 4. Efficient lubrication |
| 2. Light weight | 5. Ease of installation |
| 3. High load capacity | 6. Low cost |

Information on types, sizes and ratings, and a list of typical Needle Bearing applications will be found in Catalog No. 121. Send for a copy today.



THE TORRINGTON COMPANY

Established 1866 • Torrington, Conn. • South Bend 21, Ind.

"Makers of Needle Bearings and Needle Bearing Rollers"

New York • Boston • Philadelphia • Detroit • Cleveland • Seattle
Chicago • San Francisco • Los Angeles • Toronto • London, England



TORRINGTON NEEDLE BEARINGS

rather than individual orders for each type of material. This method, which eliminates considerable paper work, will be used in hotels and apartments and all housing except farm dwellings, construction by the Federal Public Housing Authority, and residential construction under order of the Petroleum Administrator for War, which is separately provided for. Until Mar. 1, existing procedures will continue in effect; after that date, Federal Housing Administration officials may approve applications without referring them to WPB.

To conserve lumber, the use of wood in this construction is curtailed, and restrictions are removed on the use of structural steel framing and reinforcing steel for concrete and masonry. In addition, permission is granted for metal gutters, for additional electrical outlets, and for specified heating systems in different types of dwellings. (Order P-55-C.)

Iron and Steel Scrap

Dollar-and-cents differentials are established to be applied to maximum prices for No. 1 railroad heavy melting steel scrap in determining ceilings that may be charged on 35 listed grades of railroad steel scrap by railroads, car manufacturing companies, and switching companies. The differentials replace the formula method used before and are designed to make ceilings uniform for scrap producers. Amounts to be applied in computing charges in 29 established basing-point cities range from \$6 per gross ton below the base-grade price to \$6 above. Seven listed grades of cast iron scrap sold by railroads are given specific ceilings by the same OPA ruling, and the fee of the dealer who prepares heavy breakable cast iron scrap into foundry sizes is increased \$1 per gross ton by reducing the price of the unprepared cast iron. (Amendment 14, Revised Price Schedule 4.)

Women's, Children's Garments

Retailers and wholesalers of women's and children's outerwear garments must price these articles under the spring selling season price ceiling on and after Mar. 1. This action, which maintains consumer prices at last year's levels, marks the first automatic operation of the seasonal price regulation under Amendment 1, Regulation 330, according to an OPA statement.

Rubber Footwear

Retail price ceilings on rubber footwear have been raised about 6½%. This OPA action is taken to compensate for rising costs which are caused by increased use of synthetic rubber in rubbers, arctics, gaiters, and rubber boots.

Rubber

As a result of revisions in the rubber regulations announced by the Office of the Rubber Director, the conversion of milking machine inflations from crude to synthetic rubber has been postponed to Apr. 1, 1944; also the use of natural rubber has been prohibited in the manufacture of certain hard-

rubber products and curtailed in the manufacture of specified machinery parts. Some synthetic rubbers are available (with restrictions) for use in industrial protective clothing and nonleather shoes. General-purpose synthetics may be lent temporarily from one manufacturer to another without specific authorization. (Revised Appendix III, Rubber Order R-1, as amended.)

Textiles

Manufacturers of textiles, clothing, and other related products may appeal for suspension of production directives on the ground that adherence to them would mean producing at a loss, WPB has announced. Applications for relief should be filed with the secretary of the OPA in Washington, with a copy of the application sent to WPB's Appeals Division. (Order M-328, as amended.)

Vulcanized Tubing

After April 1, the use of vulcanized fiber tubing in the manufacture of nonrenewable electric fuses will be prohibited except under specified conditions. This limitation is designed to conserve the supply for Navy needs and for other uses for which there are no substitutes. (WPB Order L-161, as amended.)

Eggs

Purchases of dried eggs by government agencies have been given maximum prices for the month of March; these are differentiated from other consumers' prices because products will be manufactured according to new specifications set by the War Food Administration. (Amendment 21, OPA Regulation 333.)

Manufacturers of frozen egg products are granted an increase of $\frac{1}{16}$ of a cent per pound on their processed items during March, to bring their prices in line with those for dried-egg products. (Amendment 22, Regulation 333.)

Paper Towels

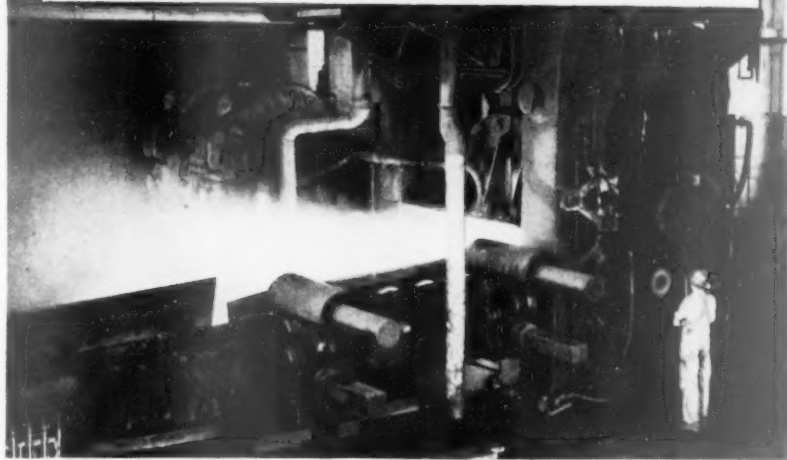
Manufacture of paper towels for home use has been reduced from 100% to 80% of 1942 base period output, due to shortage of pulp, and the desire to shunt more towels into industrial channels. (Order M-241-a, as amended.)

Other Price Actions

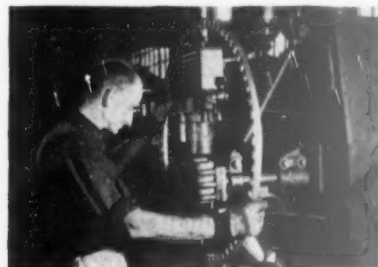
New, somewhat higher cents-per-pound maximum prices for refined peanut oil are set by OPA's Amendment 16, Regulation 53, with the object of compensating for the subsidy of $\frac{1}{16}$ per pound which was paid to refiners by Commodity Credit Corp. last year, and which will not be paid on oil from the 1943-44 crop. . . . Amendment 25 to OPA's Revised Regulation 269 sets temporary ceilings on specified parts of cut-up drawn poultry, in a move to protect consumers who are now paying excessive prices for these items. . . . Fresh coconuts in husks are given specific maximum prices for the first time by OPA through Amendment 1, Regulation 505.

IN THE NEWS

WITH TORRINGTON BEARINGS



AT THE NEW CALIFORNIA STEEL PLANT of Kaiser Company Inc.'s Iron & Steel Division. This big, three-high rolling mill, built by Lewis-Foundry & Machine, is equipped with four-row tapered roller bearings 21.500" in outside diameter and having a radial capacity of 550,000 pounds at 100 R.P.M. Designed and built by Torrington's Bantam Bearings Division, this giant bearing is typical of the specialized service Torrington is equipped to render in meeting the unusual in anti-friction bearing requirements.



BEARINGS TEN FEET IN DIAMETER. These are races for gun mount bearings for the 5" twin anti-aircraft guns. Held to tolerances of .002" in diameter, .001" parallelism, Bantam engineers devised special methods for machining and gauging these giant rings where the change of a few degrees in temperature would cause dimensional changes greater than the specified tolerance.

RETAINING CAGES STAMPED FROM STEEL were also designed by Bantam engineers to reduce weight, conserve critical material. Shown here is a typical "stamped" cage for 33-inch diameter thrust roller gun mount bearing. Retaining cages for the 10 foot diameter bearings are of similar design, but constructed in eight segments and welded together on final assembly.

FOR YOUR SPECIAL BEARING NEEDS, you will find Torrington's experience in the design and manufacture of anti-friction bearings of every major type helpful in the solution of your bearing problems. **TURN TO TORRINGTON** for your bearing needs.



TORRINGTON BEARINGS

STRAIGHT ROLLER • TAPERED ROLLER • NEEDLE • BALL
THE TORRINGTON COMPANY • BANTAM BEARINGS DIVISION
SOUTH BEND 21, INDIANA

PRODUCTION

No War Baby

Lecithin, long used by food industry and confectioners, now is widely used in paints, oils, cosmetics, textiles, soaps.

Lecithin, the substance with the unfamiliar name that you'll find listed along with chocolate and sugar and other ingredients in the fine print on almost any box of good chocolate creams, is no war baby.

It has been doing yeoman service for the food and confectionery industries as an emulsifier, or dispersing agent, and antioxidant for fats, hence a protector of freshness.

• **Saves Scarce Fats**—War, however, is accelerating its consumption, because a little of it saves a lot of scarce fat, and wartime biological research is discovering the fact that it has a third function in nutrition and therapeutics as an essential in the metabolism of fats.

Although it is probably too early to say that a diet rich in lecithin will cure every case of psoriasis, there is a considerable amount of experimental evidence on its efficacy in the alleviation of the persistent skin disorder.

• **Assists the Liver**—There is even more evidence that it assists the intestinal absorption of vitamin A (and the bodily conversion of vegetable carotene into vitamin A).

It checks tendencies toward arteriosclerosis by reducing any excess of cholesterol in the blood, and helps the liver to absorb and utilize vitamin B₁₂ or thiamin.

• **Found in Soybeans**—Lecithin, which gets its name from the Greek word for the yolk of an egg, is found naturally in almost every living cell (and with cholesterol constitutes the so-called fat of certain bodily tissues such as brains and nerves) and in all seeds, nuts, beans, grains, eggs, and dairy products.

It is extracted commercially almost entirely from soybeans along with their oil, protein, and other constituents. So little lecithin is extracted from eggs, its former principal source, that it sells for \$8 to \$12 a pound as compared with soya lecithin at 30¢ to 35¢. Lecithin extracted by the packers from animal brains sells for \$5 to \$6.

• **A Complex Compound**—Chemically, lecithin is a complex compound of phosphorous, nitrogen, and fatty acid called a phosphatide. Physically, it can be of

any consistency specified by the user from a light-golden oil to a bright light-brown, soft, salvelike substance of neutral odor and a bland, faintly nutty taste.

In the form most commonly used commercially, it comes mixed with almost equal parts of soya oil and cephalin, a substance so nearly akin to lecithin that it is difficult to distinguish them, plus minute amounts of sterols and inositol.

• **Valued in Foods**—When minute amounts of lecithin (in percentages of 0.1% to 1.0%) are mixed with the ingredients of foods which contain both fat and water, the molecules of the substance seem to serve as both lubricants and reducers of friction between the particles.

This allows them to slide together and blend almost instantly; 0.35% of lecithin, for example, replaces 8% of cocoa butter in reducing a lumpy, almost gritty chocolate mixture to the consistency of cream. A small percentage of lecithin in Army chocolate powder enables it to be fully dispersed in cold water on the battlefield or any other

place where hot water cannot be had.

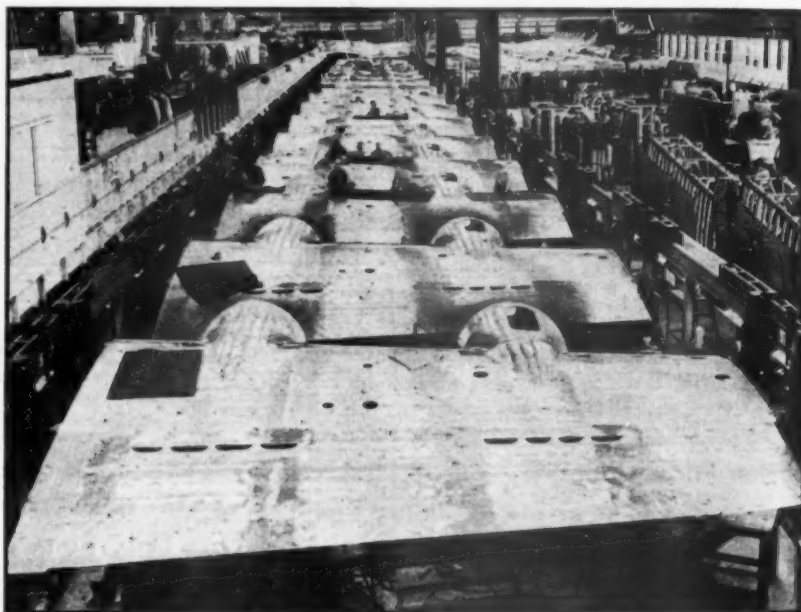
• **Freshness Preserved**—Because the soya product assists fat to disperse more freely among other ingredients of bread, cake, packaged biscuits, cookies, and other foods, less fat is required to achieve a given end result; war-scarce fat is saved for other purposes. Moreover freshness is preserved measurably beyond the normal period because lecithin-treated fat oxidizes less rapidly.

Lecithin gives oleomargarine a smooth consistency and stability against putrefaction, confers butterlike qualities on it, and prevents its spattering in the pan during frying.

• **More Uses**—The versatile material imparts a velvety smoothness to ice cream and improves its resistance to melting; mixed with soft wheat flour, the substance will make macaroni products as resistant to disintegration during cooking as those made with hard wheat flour and without added lecithin.

Headquarters for soya lecithin in this country is the American Lecithin Co., Inc., Elmhurst, N. Y., which began in 1928 to pioneer a patented German extraction process using purified hexane (a petroleum hydrocarbon) to dissolve the material from crushed soybeans.

• **Another Firm Extracts**—The company handles no soybeans itself, but licenses the Glidden Co., Cleveland, and the



FLIGHT DECK

Because of its resemblance to a flight deck, a new-type assembly line for bomber wings (above) is called the "U.S.S. Saratoga" by workers at Lockheed Aircraft, Burbank, Calif. To management, however, it represents

much more: about a 50% saving in manpower to outfit wings with engines, wiring, and plumbing. The line's new feature is the railed conveyor on which the wings roll through 15 work stations. This carrier saves much of the time formerly consumed in moving the work by crane.

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The Tools that are used to make TIME . . .

The most valuable of all the products "made" with Stanley Electric Tools is that precious commodity, *time*. The jobs that once took days can be done in a few hours when electrical power supplants "elbow grease". For example, the Stanley Unishear shown makes 2400 snips per minute. How many could be made by hand?

Stanley Unishears, Electric Saws, Hammers, Drills, Grinders and Screw Drivers are keyed to the rapid tempo of modern construction and industrial production. The *time* they save is applied to extra output and increases the earnings of the worker.

By multiplying available man-hours, such tools have helped make it possible to build the world's greatest war machine. In post-war America, Stanley Electric Tools will speed the job of reconversion — help craftsmen build new comforts and conveniences for a peaceful world.

For these projects, the men who build America will also need Hand Tools, Hardware, Strip Steel, Metal Stampings, Industrial Finishes, and Steel Strapping . . . all bearing the name STANLEY that has been known and trusted by industrial craftsmen for over a hundred years. The Stanley Works, New Britain, Connecticut.

LOOK FOR THIS TRADE MARK WHEREVER AMERICA IS BUILDING . . . ANYTHING



Stanley Hardware — for doors, windows, cabinets, garages, screens, industrial and commercial openings.



TRADE MARK



Stanley Chemical — lacquers, enamels, synthetics and japans for industrial finishing.



Stanley Steel — hot and cold rolled strip steel. Standard analysis, special analysis and alloys.



Stanley Metal Stampings — formed or deep drawn parts made to order.



Stanley Tools — wood and metal working hand tools for carpenters, masons, mechanics and hobbyists.



Stanley Electric Tools — portable electric drills, hammers, saws, grinders, metal shears and screw drivers.



Stanley Steel Strapping — shipping container reinforcement. Car Banding. Tools for application.



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REVOLVATOR HYDRAULIC ELEVATORS

For SAFETY and
ECONOMY



This Ramp Eliminator saves time and trouble in moving material between basement and street level.

FOR short lifts—floor to floor, truck loading, press feeding—REVOLVATOR HYDRAULIC ELEVATORS are ideal in factory, warehouse, store, garage, and many other buildings. Their simplicity and safety; their low cost both to install and maintain, make them extremely popular. Standard and special designs for hand, electric, water or oil-air operation. Send for folder BW.

REVOLVATOR Co.

DESIGNS AND MANUFACTURERS OF MATERIAL HANDLING EQUIPMENT

2011-86th St. NORTH BERGEN, N. J. Since 1904

Archer-Daniels Midland Co., Minneapolis, to use its extraction process, buys the lecithin produced, processes, refines, and blends it to various consistencies, and markets it.

Although American Lecithin maintains a standing offer to license other producers, no other soya extractor came into the field until last year when the Central Soya Co., Fort Wayne, Ind., began extracting lecithin by a solvent extraction process of its own.

• **Uses Expanded**—Prewar use of the material was almost entirely in the field of foods and confectionery.

Present nonedible applications include: oil paints and enamels, wherein it is used as a dispersing and wetting agent; leather, as a softener; textiles, as a finish to produce a soft "hand"; lubricating oils, as an antioxidant and anti-gumming agent; leaded gasoline, as a dispersing agent; cosmetics and soaps, as an emulsifier and antioxidant.

Big postwar markets are expected by American Lecithin for its new lecithinated flour, which will enable the housewife to save fats in baking cakes and pies and cookies that will taste better and stay fresh longer, or to make smooth, lumpless gravies.

DIESELS BY HENDY

Newest entrant in the expanding field of diesel engines is the Joshua Hendy Iron Works, Sunnyvale, Calif., "largest western manufacturer of marine power."

The company, which began to build mining equipment 88 years ago while the California gold rush was still going strong, previously has confined its engine operations to steam, having begun the manufacture of triple-expansion reciprocating engines in 1917, and of turbines in 1941; it became also a builder of electric motors, generators, and equipment through the purchase of Crocker-Wheeler in 1942 (BW—Nov. 28'42,p7), and a producer of pumps through the purchase of Pomona Pump Co. in 1943.

First of the new line of Hendy stationary and marine prime movers to be ready for production is the Series 50 Diesel, a heavy-duty, four-cycle engine which will be available initially with four or six cylinders of 12-in. bore and 15-in. stroke and a rating of 8.3 hp. a cylinder at a normal operating speed of 500 r.p.m.

JITTERBUG TORPEDO

Some time ago the Navy revealed that an unusual torpedo director manufactured in Minneapolis shared credit with a torpedo crew for the destruction of a Japanese cruiser on Oct. 12, 1943.

Now it is disclosed that the manufac-



TRICK WITH MIRRORS

Elgin Fassel (right) demonstrates office machine which experts declare impossible. It's a microfilm recorder such as many firms use to preserve records, with the "impossible" facility of filming both sides of a page in a "shot." The pages pass between 45-deg. mirrors which reflect the entire contents into the lens. Assistant actuary of Milwaukee's Northwestern Mutual Life Insurance Co. Fassel developed the device for the company with the help of film workers. It handles 260 pictures a minute—condensing hundreds of thousands of records into a very small space.

turer is General Mills and that its unfoodlike product comprises two separate units which together furnish the mechanical brains for a "jitterbug torpedo"—one which starts out in a given direction, apparently misses its target, then swings sharp right or left to secure a direct and destructive hit.

One unit, the director, which stands on a warship's bridge, calculates "point X" of the torpedo—the ultimate destination which depends upon the course of the enemy ship, the speed of the American ship, and other factors—and flashes aiming data electrically to the other unit, the indicator, at the torpedo station.

Torpedo tubes are aimed manually and the torpedo's course set in an automatic built steering device that is capable of a considerable variety of maneuvers including straight runs directly at the enemy, angular turns after straight runs, U-turns, and figure eights.

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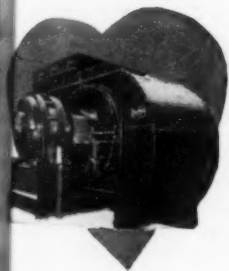
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6, 1944



"NEW LAMPS FOR OLD..."



FAN is the heart of any system. In the Power Plant, Buffalo Forced and Induced Draft Fans mean the system is always up to par

When Edison changed for all time the complexion of Night, an Industry was born. Lamps to light the night of the studios, the gay, the industrious, and just the plain folks of the World, began to flow from America's factories in an ever-increasing stream . . . always better lamps . . . at ever lower prices.

When those pioneer electric lamp makers began to build factories they found Buffalo Fans the answer to their ventilating problems. Keeping pace with their swift improvement in manufacturing processes, Buffalo Fans

and Air Washers kept air clean and fresh heated or cooled as the season required.

Today, under the terrific stimulation of the War, the lamp industry has become many faceted. Today Buffalo Fans, Air Washers and Comfort Conditioning Cabinets are serving every branch of the huge lamp industry . . . helping turn out new lamps for old. Our sixty-six years of experience in handling air at any temperature and humidity and any pressure have given Buffalo engineers the right to say . . . "When there's an AIR problem . . . let "Buffalo" supply the answer."



BUFFALO FORGE COMPANY

**BUFFALO
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BUFFALO PUMPS, INC. • THE GEO. L. SQUIER MFG. CO.
CANADIAN BLOWER & FORGE CO. LTD. • CANADA PUMPS, LTD.



Plywood Faced

Slick surface is achieved with paper sheet made from fabric scrap. Process opens new vista of war and postwar uses.

A new member of the plywood family has taken its place as a front-rank war material and is believed to have postwar possibilities.

• **Made From Scrap**—Huge amounts of fabric scrap containing uncured phenolic resins, which are left over from the manufacture of liners for military helmets, are being made into plastic or paper surfacing for plywood.

Large quantities of the finished product, called paper-faced plywood, are going into the production of shipping containers for the armed forces. Research into uses for other purposes already has uncovered numerous other applications, some of which have been tested with favorable results.

• **Paper May Be Used**—A similar facing is being made from high-strength sulphite-base paper, also impregnated with phenolic resin. Both facings are made in precured sheets for cold press application or for bonding to the plywood through the combined use of heat and pressure.

Advantages claimed for paper-faced plywood include greater strength, rigidity, moisture resistance, and toughness, and the surface has almost glass-

like smoothness, is scuffproof, non-splintering, and attractive in appearance. The high impact resistance of the product makes it suited for shipping containers which can be parachuted out of planes, landed on rocks, or dropped into the water and floated ashore without damage.

• **Three Mills Licensed**—The war products division of Kimberly-Clark Corp., Neenah, Wis., developed the surfacing, is making it, and is supplying it under license to three plywood mills. Two of these—the Buffelen Lumber & Mfg. Co., Tacoma, Wash., and the Washington Veneer Co., Olympia, Wash.—helped in the development and have accounted for most of the finished product. This has been mostly of Douglas fir plywood, a softwood. The output of the two has been marketed through the C-W Plywood Co., Chicago, which calls the product Willisway.

The third mill, the Daystrom Corp., Daystrom, N. C., is understood to be in production of paper-faced hardwood plywood.

• **Postwar Uses**—Those identified with development of the product believe it has an unusual postwar future in several civilian lines, including building construction, furniture, aircraft production, concrete forms, truck bodies, marine construction, and others.

The glass-smooth surface already has proved useful in such applications as providing tops of tables or benches where parachutes are folded and where there can be no possibility of snagging the silk. Tests have shown the product

to have possibilities in bomber doors and floors, military luggage, and other as yet unrevealed items of military significance.

The surfacing material can be made in a wide variety of colors, or it can be transparent so that the grain of the wood shows through.

• **Costs Estimated**—Rough preliminary estimates of costs show that paper-faced softwood plywood in thicknesses of $\frac{3}{4}$ in. and greater is about the same as ordinary hardwood plywood. Thinner sheets of the paper-faced softwood product, however, cost 15% to 25% more than ordinary hardwood plywood. These estimates, however, are based only on first production and, with experiments continuing, are subject to revision.

The most important saving so far revealed is that when the facing material is used, the final and comparatively costly finishing and smoothing operation in plywood manufacture is eliminated.

FROZEN PAPAYA PACKED

War cut off quick-frozen papaya from the Philippines, just as it was getting its market stride. Now the tropical product is being packed in Mexico by Frosted Food Products, Los Angeles, in industrial quantities, 33 lb. to 40 lb., and distributed nationally.

Hotels, ice cream makers, and fruit beverage concerns are the principal customers; hospitals buy it for its vitamins A and C, and its digestive virtues.

Papayas are red, pink, and yellow in flesh, alike outside, so the colors, in frozen cubes, are mixed, about 15% red, the rest pink and yellow.

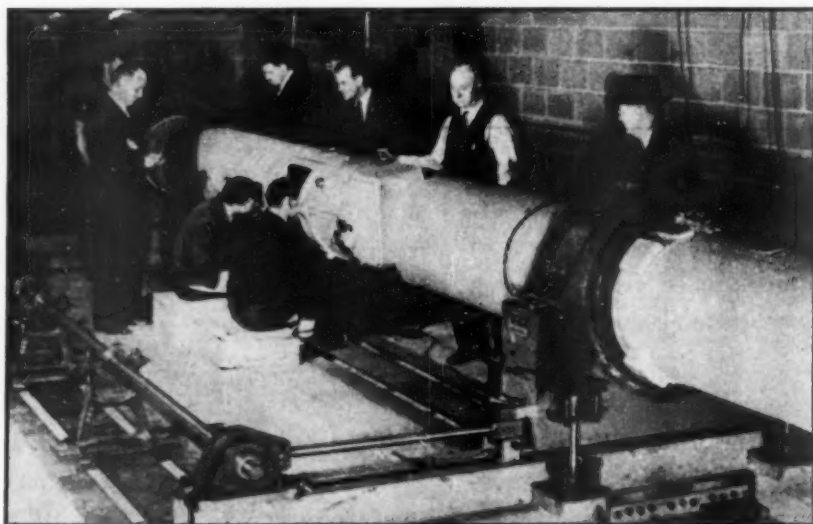
The product pays a duty, compares with pineapple and like tropicals in moderate cost (BW—Sep. 24 '38, p. 4).

TO HIKE GASOLINE OUTPUT

The Petroleum Administration for War has moved to step up production of 80-octane all-purpose (automotive) gasoline and 73-octane aviation (training) gasoline by granting higher priority ratings to refiners.

Standard Oil Co. of Indiana, meanwhile, in a statement by a member of its research staff, declares that postwar automotive gasoline isn't likely to be 100-octane, and probably won't average "more than three numbers higher than the prewar product" (ordinary gasoline was about 72; premium, about 85).

Reasons: 100-octane is too expensive; automobile engines won't be able to utilize its potentialities. Prospects for sound progress, Standard found, rest on efforts to convert more of the 6,000 hydrocarbons in ordinary gasoline into high-octane components.



CRADLE WILL ROCK

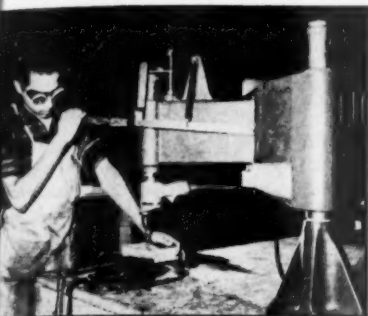
Battleships get their shakedown tests at sea; rangefinders—eyes of the big guns—get theirs ashore. At the Bausch & Lomb Optical Co., mammoth

rangefinders, whose 1,600 optical and mechanical parts must stay in alignment despite terrific vibration, are tested (above) in a shock cradle which is used to simulate the recoil of a battlewagon's 16-in. rifles.

NEW PRODUCTS

Plastic Drill Elements

Both the column base and the massive hinged arm of a successful new radial drill, built by Consolidated Vultee Aircraft Corp., San Diego, Calif., for its own production, are made of cast thermosetting resin. The material, Toolite, which is a product of Adhere, Inc., 1220 Maple St., Los Angeles 15, is normally



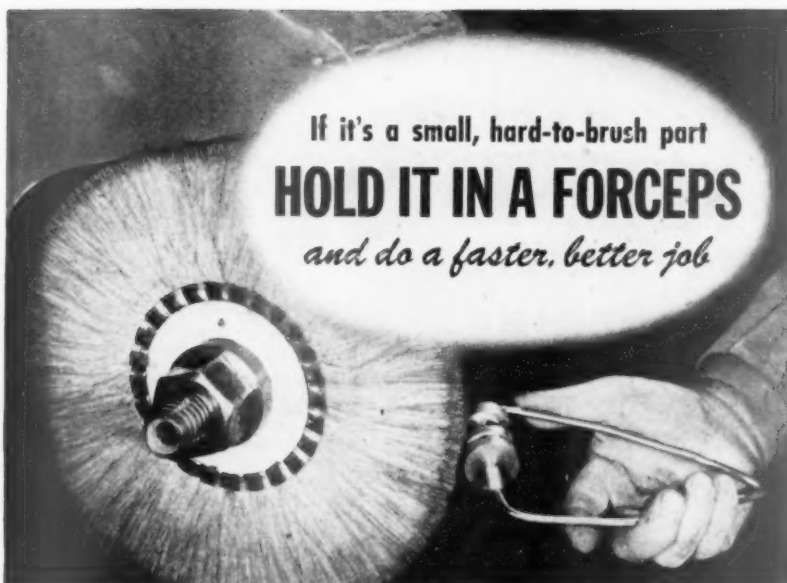
used for the mating halves of dies employed in forming light metals.

Decision to adapt the plastic to machine tool parts was based not so much on a desire to conserve metal as on a search for something lighter, hence more easily moved into position by the drill operator. Since Toolite is lighter than magnesium, yet has a compressive strength approaching 20,000 psi., it got the nod. It is said to be "inert to ordinary cutting compounds," to pass oil and water absorption tests, and to withstand a temperature of 400F.

Insecticide-Fungicide

Du Pont Garden Dust and Du Pont Potato Dust are two new chemical products formulated by E. I. du Pont de Nemours & Co., Wilmington 98, Del., for the control of both plant diseases and insects. They can be used dry for dusting or dissolved in water and applied as a spray.

The first is a combination of synthetic cryolite insecticide—found effective against various beetles, leaf hoppers, caterpillars, worms, slugs, and other chewing insects (sucking insects such as black or green aphids should be controlled with nicotine)—and copper-base fungicides for the prevention of leaf spots, mildews, and "blights" of vegetables and flowers. The second is a combination of calcium arsenate insecticide—found effective against Colorado beetles, flea and blister beetles, hornworms, and leaf hoppers—and copper-base fungicide for the prevention of early and late blight and other leaf-spot diseases. The potato dust



SMALL parts are often difficult to brush by hand. It's slow, tedious, finger-wearing work.

You can make an inexpensive forceps fixture like the one illustrated to speed up production . . . make it easier for the operator to do a better, more uniform job . . . at a lower operating cost.

This fixture is readily applicable to many burring, cleaning and polishing operations. It can be used effectively on hundreds of parts similar to those illustrated on this page . . . either to hold the work stationary, or let it spin against the brushing wheel.

This is just one of the small things that loom big in the overall production picture—brought to light by the Osborn Brushing Analysis. This fact-finding engineering survey, originated by Osborn, is a detailed study showing how brushes, or different types of brushes, can increase efficiency in your plant.

Due to wartime pressure this complete O.B.A. service has been necessarily curtailed, but we can now look forward to the day when it will again be available to all, and as always, free of charge.

Meanwhile, if you have a critical situation where vital production is being impeded, call us for an O.B.A. We'll do our best to take care of you.

THE OSBORN MANUFACTURING COMPANY

5401 Hamilton Avenue

Cleveland, Ohio



5 reasons why industry looks to Muehlhausen FOR LARGE, HOT-COILED SPRINGS!



Precision hot-coiling on automatic equipment

**SPECIALIZED FACILITIES
ENABLE MUEHLHAUSEN
TO PRODUCE SPRINGS:**

- OF ANY DESIGN
- TO CLOSE TOLERANCES
- IN LARGE QUANTITIES
- FOR QUICK DELIVERY
- OF LASTING EFFICIENCY

★ One entire plant devoted to hot-coiling—conveyorized for volume manufacture—with control laboratory an active part of production—quenching tanks of swimming pool size—skyscraper-like shot blasters for clean, lustrous finish and added life to springs. A letter will place Muehlhausen engineers at your service—to save you time, cost and effort in obtaining the right spring. New booklet available.

MUEHLHAUSEN SPRING CORPORATION
Division of Standard Steel Spring Company
775 Michigan Avenue, Logansport, Ind.

To improve product performance, use

MUEHLHAUSEN

Designed

SPRINGS

is also said to be indicated for tomatoes, eggplants, and peppers.

Ultraspeed Motor

Newest entrant for speed honors in the field of electrically driven prime movers is a new G-E Water-Cooled Motor designed especially to swing a tiny internal grinding wheel (right) at a speed of 120,000 r.p.m., or 7,200,000 revolutions an hour. Though it develops 3 hp., it weighs only 7 lb., as contrasted with the 105 lb. of a standard 3-hp., 1,800-r.p.m. motor. With normal a.c. voltage applied at 2,000 cycles, it is said to reach "full speed in less than a second" and to have undergone "eight-hour continuous runs at rated horsepower."

Back of the motor's development was a necessity for bringing up the speed of small grinding wheels used to finish holes $\frac{1}{4}$ -in. diameter and smaller in vital war parts—the surface speed required to



grind a high-grade finish economically being about the same whether grinding a large or a small hole. After the war, when the little unit will become available for general use, it will probably also be used for driving small drills of $\frac{1}{2}$ -in. and less diameter into metal and other materials.

Extrusion Press

The new Moslo Hydraulic Extrusion Press is a compact, self-contained unit occupying a floor space of only 2x4 ft., yet developing a pressure of 10,000 psi. It is designed primarily for laboratory work on the extrusion of coated welding rods and is equipped with an automatic device for feeding welding wire into the center of the flux, but it can also be used with a change of dies and, without the wire feed, in the extrusion of powdered metals, carbon, and certain plastics. Pressure gage and all controls are

mounted on an inbuilt panel right in front of the operator's station.

The outfit is said to offer "an unusually wide range of speeds on the cylinder," to have sufficient capacity for "small scale production of welding electrodes," and to come complete and "ready to set on a laboratory or factory floor, connect to a power line, and go into action." With proper priorities, twelve-week delivery is promised by the manufacturer, Moslo Machinery Co., 2443 Prospect Ave., Cleveland 15.

SHAPE OF THINGS TO COME

Eyeglasses for seeing the world of tomorrow more clearly can be expected to transmit as much as 8% more light—and eliminate bothersome "ghost images"—through a coating technique now being used to curb surface and interior reflections on the lenses and prisms of Norden bombsights. The transparent, microthin deposit of magnesium fluoride which does the trick will be applied by a new self-contained machine that evolves the high vacuum necessary to vaporize the metallic salt in a few minutes instead of several hours required just a year or two ago. Since undue cleaning and polishing may rub out the coating in a couple of years, recoating stations are proposed where the job can be done while you wait.

Enough imported shellac for disk phonograph records may shortly cease to be a problem. Replacement will be a more durable material of better reproduction quality synthesized from an inexpensive and plentiful home-grown liquid that has always been in long supply. Commercial production is contingent on laboratory tests of small lots of the synthetic produced in a pilot plant.

Furniture for the postwar office, home, and school promises to withstand harder knocks, to look new longer by reason of new finishing techniques just emerging from the laboratory. One of them involves a new "penetrating primer," or undercoat, which will provide increased "anchorage" for finishing lacquers that have long been sufficiently resistant to scratches but, because of faulty adhesion to wood, not always sufficiently bang-proof.

WANT TO GO SHOPPING?

 <p>Old Dutch Cleanser would be 45¢</p>	 <p>Gillette Blue Blades would be \$1.25 (pkg. of 5)</p>	 <p>Arrow Shirts would be \$11.20</p>
 <p>Pro-phy-lac-tic Tooth Brushes would be \$2.50</p>	 <p>Luden's Cough Drops would be 25¢</p>	 <p>Pepsi-Cola would be 25¢</p>
 <p>Wrigley's Gum would be 25¢</p>	 <p>Ivory Soap would be 50¢ (large size)</p>	 <p>Listerine Tooth Paste would be \$2.00 (double)</p>

What's happened to prices? It would be mighty unpleasant for our America to slide into a situation where you had to pay these prices for these familiar products. Of course, it wouldn't happen overnight. It would happen slowly, insidiously. That's the way it is happening.

Of course the greatest catastrophe wouldn't be just the higher prices of the familiar American products shown here. It would be the drop in the value of money. Your money in the bank would *shrink*. Your life insurance would be worth *far less*. Your pay check—well, you know what's happening to it already.

There are three ways we can stop this creeping, soul-destroying monster from taking America over.

Read them carefully: 1—Encourage our representatives in Washington to tax our extra income away. (*Sure it's hard, but not as hard as Inflation, and saddling our children with the war's cost!*) 2—Give whole-hearted support to Government price-control agencies. (*Sure they've made mistakes, but they're the best we have and they can do the job if we support them.*) 3—Get along on as little as you can. Deny yourself—to buy War Bonds. (*The suckers are the ones who are spending, not the ones who are saving. Think that through.*)

If you have the courage to do these three things, America can go right on being the America we've always known.

Have you...?

ROGERS

DIESEL AND AIRCRAFT CORPORATION

1120 Leggett Avenue, New York 59, N.Y. Builders of diesel-electric equipment and aircraft parts for the armed forces. Divisions: Hill Diesel Engine Company, Edwards Company, Edwards Aircraft Products, Inc., Ideal Power Lawn Mower Company.



TRADE MARK REG.

Diesel Engines, 5 to 2000 h.p. • Gasoline Engines • Generator Sets • Generators • Power Units
Switchboards • Pumping Units • Hydraulic Aircraft Equipment • Recoil Mechanisms • Power Mowers
Power Brushes • Snow Removal Equipment • Streamlined DeLuxe Railway Motor Trains • Diesel Locomotives

A word of thanks to the famous American makers represented above, who have permitted us to associate their products with prices upped fivefold—an increase that is small, compared to what happened in inflated Germany, when a loaf of bread cost a million marks!

COMPLETE REPRINTS of this message for poster use will be supplied upon request, subject to the limits of our paper allotment.

MARKETING

Citadel Stormed

Wisconsin's no-margarine line smashed as Badgers, lacking butter, turn to oleo, target of prohibitive state licenses.

If love laughs at locksmiths, oleomargarine makers are entitled to a few hearty guffaws at Wisconsin's lawmakers.

Years ago the state legislature set up prohibitive taxes (15¢ a lb.) and license fees for handlers to discourage the use of any bread spread but nutritious, character-building butter from wholesome Wisconsin cows.

• **One License in 1940**—These proved so effective in preventing the importa-

tion of margarine that fiscal 1940's total take in margarine tax and license money was \$5, collected from a bakery which unwittingly violated the law and belatedly took out a license.

No taxes or license fees were collected in the fiscal year ending June 30, 1941.

But the lawmakers reckoned without this war and lend-lease. Now even butter-proud Badgers are hungrily eating oleo.

• **Sales Soar in 1943**—Here's the record of state margarine licenses issued during the calendar year 1943:

Retailers (\$25)	412
Bakeries (\$5)	10
Boardinghouses (\$5)	1

• **Consumer Licenses**—Of all the prohibitive measures Wisconsin has enacted to discourage use of oleomargarine, none would be more prohibitive—if it were possible to enforce it—than the annual

tax of \$1 on oleomargarine consumers.

Actually, the figures show, the consumers' license is a dead letter. No consumer licenses were issued in 1940, only nine in all of 1943. Thus far in 1944 only seven consumers' licenses have been issued despite the increase in the number of licensed retailers.

• **\$70,578.96 in Taxes**—Even in 1943, consumption of margarine in Wisconsin did not reach major proportions until the latter part of the year:

	Receipts From 15¢-a-lb. Tax	Receipts From License Fees
3rd quarter....	\$ 7,036.00	\$8,000.00*
4th quarter....	70,578.96	9,170.50*

* The figures represent more licenses than the totals indicate. Most retailers got licenses late in the year and had to pay only \$12.50, instead of \$25.

• **1943 Pace Continues**—Thus far in 1944, retail dealers' licenses total 422. One wholesaler's license has been issued. The single manufacturer's license granted in 1944—and apparently the only one Wisconsin ever issued—was made out to Kraft Cheese Co. to cover its manufacture of "spread-preserved" butter for U. S. Army use in the tropics.

Tax payments for the first quarter of 1944 are not due until Mar. 1, but State Dept. of Agriculture officials predict that the sale of margarine in 1944 will undoubtedly continue at the 1943 pace.

• **Some Margarine Barred**—Not all margarine manufacturers can sell their product in Wisconsin, because of a state law that bars items containing benzoate of soda.

But even those whose products meet state requirements are not particularly elated about cracking this long-denied market. Reason is that they are permitted to use only 67% more than their average 1940-41 vegetable oil consumption, and hence prefer to allocate their limited production to long-standing customers.



MODERN DESIGN

Members of Detroit's new Industrial Designers' Assn. are giving the motor city a preview of their ideas for the future—in the form of mockups, models, and sketches. At its first annual exhibit this week, the I.D.A. displayed plans for a variety of items that range from helicopters and autos to the futuristic lawn mower sketched by George W. Walker (above), a top designer for Nash-Kelvinator Corp. Other items attracting attention include an integrated kitchen and bathroom for the postwar cottage and molded plywood furniture designed by Leonard Keller (below right), chief

designer for Murray Corp. of America, who demonstrates it to Lawrence Wilson of the Nash-Kelvinator staff.

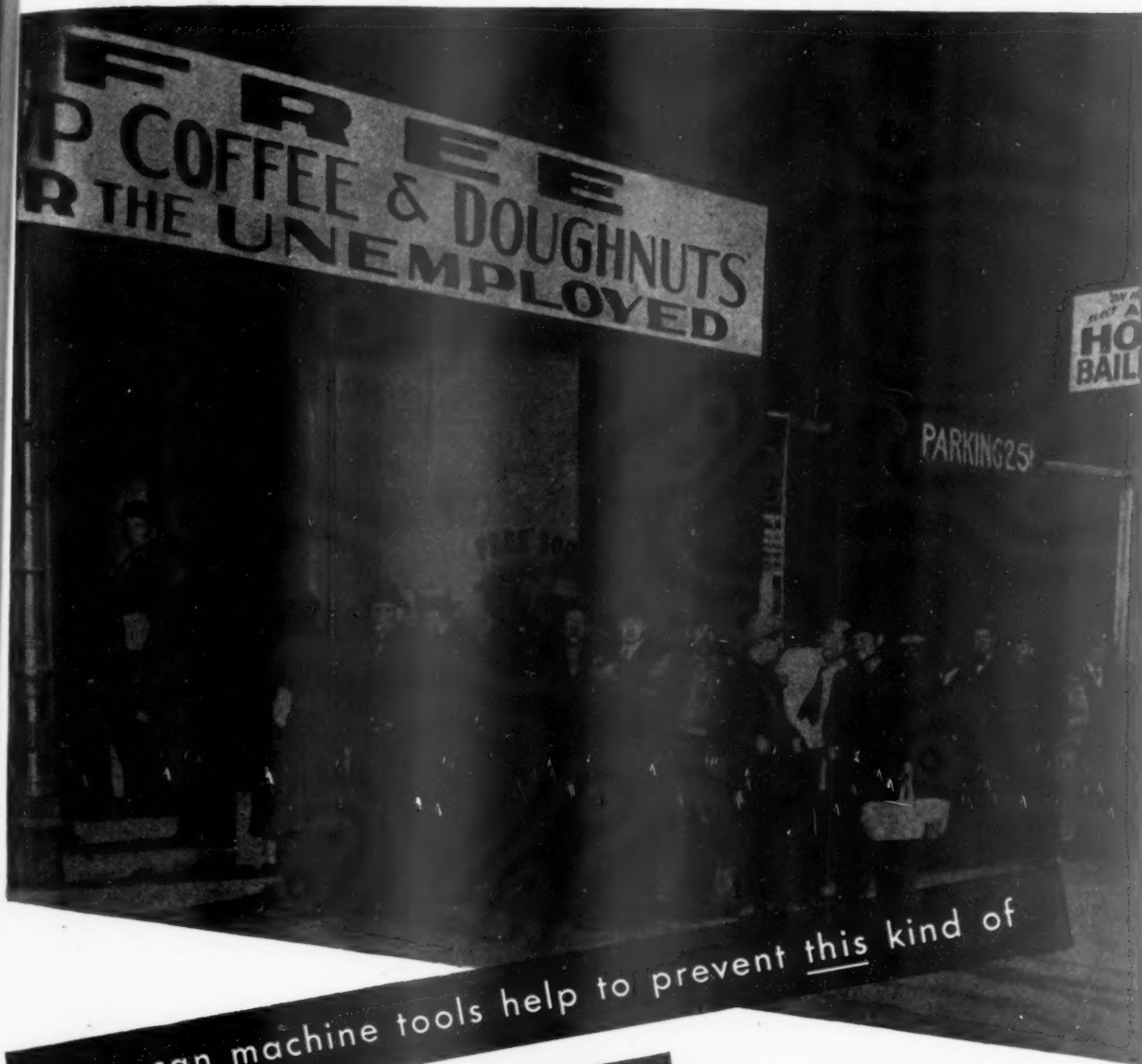


More Sheeting

Vinson directive invoked for first time as the government seeks to increase production of lower-priced civilian goods.

Intended to provide a quick and potent cure for lagging production of essential low-end (low-price) civilian textiles, the "Vinson directive" was signed in mid-November, announced in mid-December (BW—Dec. 18'43, p5), applied in due course for the first time last week—to bed sheets and sheetings (BW—Feb. 19'44, p8).

• **Principle Is Simple**—Cooked up by the War Production Board and the Of-



How can machine tools help to prevent this kind of

Victory?

Remember the big parade of the breadline—the march of the bonus army — the victorious men selling apples? Many an American hero tasted those bitter fruits of victory, and the war to end war ended nothing.

What kind of victory will this one be? It can be the great one American boys are giving their lives for — but they alone can't make it so. For victory in peace, as in war, must be planned ahead . . . and in peace, you're one of the Generals.

If you are a manufacturer, there is a small group of basic machine tool engineers who can help you to plan now for the kind of victory we've told our sons they're fighting for.

One of these engineers is a Bryant man. We urge you to call him today. For his specialized knowledge of internal grinding machinery is important to the manufacture of literally everything that will make this country a finer place: this victory a victory that we shall not be ashamed of.

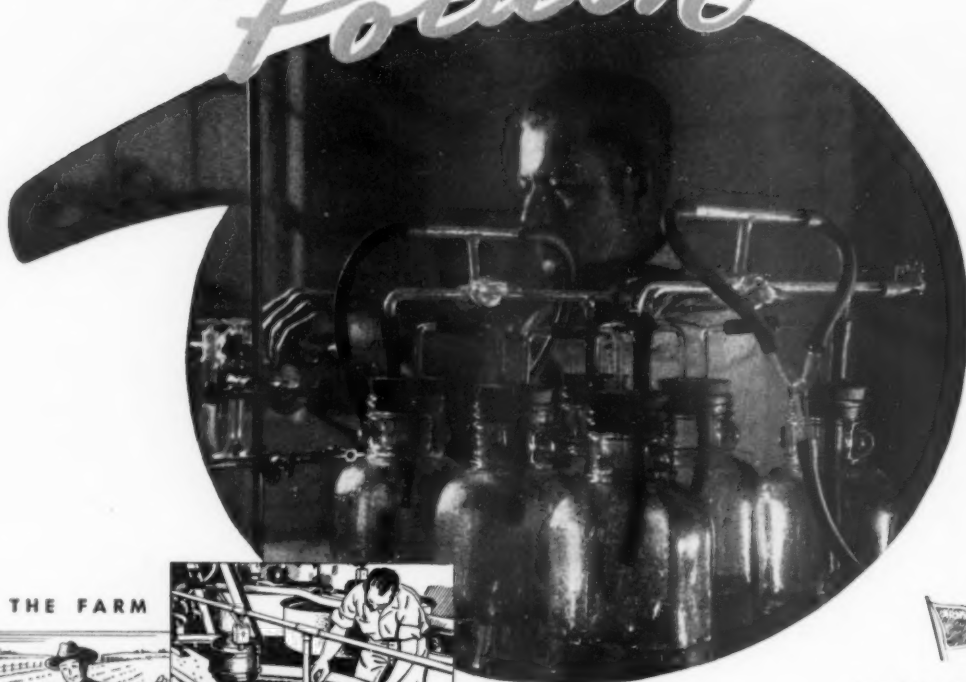


BRYANT CHUCKING GRINDER COMPANY

SPRINGFIELD
VERMONT, U. S. A.

RESEARCH FINDS NEW WAYS TO USE

Potash



ON THE FARM



IN INDUSTRY



*Awarded to International's
Potash Mine and Refinery on
August 23rd, 1943, and to
International's Magnesium
Plant on November 30, 1943.*

Through laboratory research and experimental field work, International is continually seeking new ways to utilize the rich chemicals in potash. To increase acre yields. To enhance the quality of farm crops. And to serve industry. International's chemical engineers developed a complete line of all grades of

Muriate and Sulphate of Potash and water-soluble Sulphate of Potash Magnesia to supply the rapidly growing farm market for quality fertilizers. In a new manufacturing plant in Ohio, International is producing chemicals for war purposes and in post-war days will supply potassium chemicals to improve processes in the manufacture of paper, glass, cloth, drugs and other essential products. *International Minerals & Chemical Corporation.*

General Offices: 20 North Wacker Drive, Chicago 6.

MINERALS CHEMICALS

for industry and agriculture.
Potash and Phosphate
*for Fertilizers and Industrial
Chemicals*

Chemical Fertilizers
and Fertilizer Materials

Chemicals -
Epsom Salt—Defluorinated Phosphate—Glutamic Acid—Mono Sodium Glutamate—Potassium Chlorate—Silica Gel—Sodium Silico-Fluoride—Sulphuric Acid—and others.

International

MINERALS and CHEMICALS

CHEMICALS • PHOSPHATE • POTASH • FERTILIZER

Office of Price Administration (both agencies, for directly opposite reasons, were dissatisfied with the final version), the directive was finally promulgated by Economic Stabilization Director Fred M. Vinson.

It is complicated in detail, but the basic principle is simple: Where unfavorable OPA price ceilings have induced manufacturers to divert production from low-priced to higher-priced merchandise, OPA can increase prices on low-end items. It is then possible for WPB to order manufacturers to come through with the needed production of the low-priced items.

• **Cuts Total Profits**—Manufacturers, generally, have not liked the directive because, while it allows higher prices on certain items, it forces curtailment of production of more profitable merchandise—hence cuts total profits. The size of the price increase that a company can receive on a low-end item is determined by its total profit (before taxes) position. If this is “good” (double a 1936-39 base period or better), the price can be raised only enough to cover total costs on the item. If total profits are less than this base, the price of the item is fixed at the cost of production, plus a 2% profit on that cost.

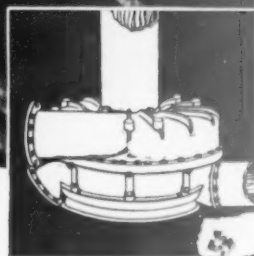
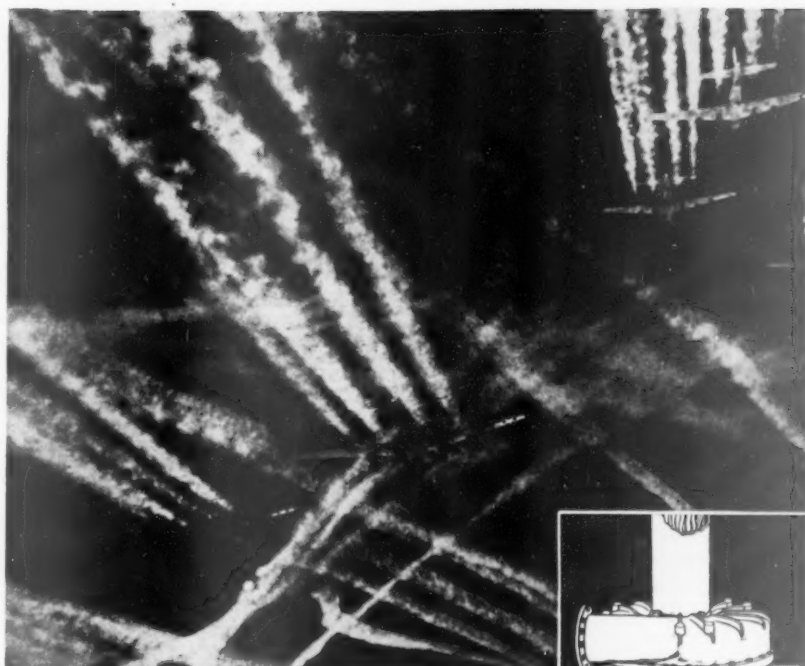
• **Intricate Formulas**—Within this framework, the directive provides an assortment of intricate formulas. The highly competitive sheeting industry chose one under which the ceiling for all manufacturers was raised by the same amount. This increase was computed by taking a weighted average of the boosts that would have been allowed to individual manufacturers had the formula been applied on a company-by-company basis.

High-cost producers sacrifice part of the increase to which they would have been entitled if a different method had been used, but they maintain competitive prices.

Object of the maneuver is to step up production of sheetings (generally a low-profit item), and particularly to get a bigger output of the low-thread-count, inexpensive types, which are most in demand by consumers.

• **Price Increase**—In 1939, output of 128-thread-count muslin accounted for over 55% of total sheeting production. By the last quarter of 1943, this proportion had dwindled to around 30%. To adjust this situation, OPA has allowed slightly higher prices on low-count types (128's and 112's). On the finest sheetings, OPA has allowed no price increases.

Total production of sheeting is dwindling to a rate well below prewar levels. In 1939, output of all types totaled over 372,000,000 linear yards; in 1943, it totaled an estimated 389,000,000 yards,



“Fort-prints” in the Stratosphere

CALL these streamers, if you will, the frosted breath of turbosuperchargers in the rarefied air. They are the telltale marks of one of the exacting aviation jobs of New Departure Ball Bearings—the double duty of locating the shaft of a turbosupercharger under thrust and radial loads.

No ordinary bearing could do this job! Driven by the engine exhaust, it must operate at very high speeds and at wide temperature extremes, on the vital job of feeding air under pressure to the engines.

When “it can be told” the momentous role of New Departure Ball Bearings in this war—wherever shafts turn—will make mighty interesting reading. They are superior bearings wherever used, built by a company with the ability to *get things done*.

Add these wartime lessons to half a century of experience and you have the reason why New Departures should be your choice for every future use.

LET'S ALL BACK THE ATTACK...BUY WAR BONDS



Nothing Rolls Like a Ball
NEW DEPARTURE
BALL BEARINGS

but the trend is down. A breakdown by quarters tells the story:

Period in 1943	Total Production (thousands of linear yards)	Production Available to Civilians (thousands of linear yards)
First quarter	107,834	47,676
Second quarter	104,373	58,200
Third quarter	91,880	59,382
Fourth quarter*	84,982	60,815
Total for 1943*	389,069	226,073

*Estimated

Cuts in military requirements kept civilians from faring as badly as they might have otherwise, but they didn't do too well. WPB's Office of Civilian Requirements estimates minimum civilian needs for sheeting at 257,000,000 yards annually. Civilians got less than that last year.

• **May Be Holding Out**—Chances are that retailers' stocks of sheeting will be augmented even before the directive has time to stimulate production. Government textile officials believe that mills have been holding sheeting off the market in anticipation of the price boost. Because OPA believes that wholesalers and retailers are now making even sheetings, manufacturers' price increases must be absorbed by distributors, unless they can show real hardship.

• **Another Move**—Besides implementing the directive for sheeting, OPA also tightened up Maximum Price Regulation 127 this week to deter the industry from over-finishing cotton and rayon piece goods to take advantage of the markups allowed for such processes as screen printing, flock printing, and moireing (BW—Jan. 15'44, p27).

FCC VARSITY MAN

Confirmation of Lt. Ewell K. Jett, USN (Ret.), as a member of the Federal Communications Commission, brings that agency up to its full seven-man strength for the first time since July. It was then that President Roosevelt suddenly withdrew the nomination of George Henry Payne, New York Republican, and a stormy petrel of the commission. Nominated as an "independent," Jett—who has been FCC's chief engineer since 1938—withstood a political barrage by the Senate Interstate Commerce Committee; several Republican members questioned his politics since he had never voted. But Republican, Democrat, or mugwump, the Senate confirmed him, concluding that good engineers are important on the FCC

Macy Tries Again

And this time drug trade figures that department store really intends to push its line of Supremacy products.

Seven years ago R. H. Macy & Co. of New York, the world's largest department store, announced the formation of a new subsidiary, Supremacy Products, Inc., to sell its private brand merchandise (BW—Aug. 21'37, p18). Deals were concluded with a number of department stores and a smattering of retail drug-gists, and then the Supremacy plan languished.

Last week Macy's made a similar announcement about Supremacy Products, and this time the announcement was taken more seriously in the drug trade. The reason: This time the Macy subsidiary is placing sale emphasis on merchandising, whereas in 1937 its Supremacy venture was regarded as partly a propaganda move in its fight against the state fair trade laws, which permit price fixing on advertised brands.

• **Merchandising Talent**—As a prime indication that the company means business now, Macy has brought Daniel S. Shaffer in from American Home Products to head up merchandising as general sales manager of Supremacy; T. W. Johnson, executive vice-president of Macy's, doubles as vice-president of the drug subsidiary. Supremacy will also have the services of expert drug merchandiser Herschel Deutsch of the Grey

Advertising Agency, Inc., which is handling the account.

Sales appeal of Supremacy products rests on (1) Macy's success with its line in its own "world's largest independent drug store"; (2) prices substantially lower than advertised brands; (3) quality tests provided by Macy's bureau of standards; and (4) the "engineered merchandising" which will go with the franchise for selling the line.

• **Limited Sales Now**—Distribution of Supremacy products will begin with 50 items to be sold in selected areas—probably New England first. Delivery will be made from Supremacy's Long Island City, N. Y., headquarters direct to individual purchasers with no wholesale operation involved. Future plans for Supremacy envision the time when certain specialty products may be sold through regular distribution channels.

NO CHARGE FOR CABLE REELS

General Cable Corp., New York, last week announced that after Mar. 1, its cable reels, wire spools, and other containers, used to transport its products, will be shipped on a no-charge basis without payment or deposit, but with a request for prompt return of "returnable type containers."

The company also offered to allow credit for return of all containers previously billed or paid for, if they are returned in good condition on or before Feb. 28, 1945.

The new no-charge policy was not an industry-wide move. Competitors were quick to interject that this was "no way to alleviate the biggest lumber and container shortage in history."

Although the executives of General Cable would not amplify the announcement, it is understood that they believe their offer to repurchase containers will bring in thousands of reels and spools that have piled up in customers' yards and storehouses through the lapse of customary time limits.

A SELF-RATIONING PLAN

Soap powder isn't rationed, but a grocer has to sell it sparingly if he hopes to take care of all his customers.

The Surv-All Markets, Los Angeles chain, tried out a unique plan in one store. Soap powder is sold only to customers who bring their gas bills. Date of a weekly purchase of not over two packages is stamped on the back of the gas bill.

The store will sell the customer no more soap powder, unless he can show ration books to prove that there are small children in the family.

The plan worked well enough to be extended to all stores in the chain.



with world-wide allocations for television, FM, facsimile, and international air and sea communications services coming up after the war.

Cycling the Bills

Department stores try out new billing systems to relieve pinch of manpower and bookkeeping machine shortages.

Shortages in both manpower and bookkeeping machines are forcing department stores to adopt cycled and skeletonized billing systems. Additional evidence of this trend was seen this week when Saks Fifth Avenue prepared to bill customers at its New York and Chicago stores under the cycling plan.

•To Eliminate Peaks—Hereafter only those customers whose names are in the alphabetical group "A to Barz" will receive their statements as of the first of the month. Next day the bookkeepers will balance ledgers "Bas to Boz" and prepare statements, continuing thus until on the last business day of the month statements go to customers "Wh to Z."

Saks' cycle billing, designed to save

Don't come to San Francisco NOW

We want you to believe that it is a war zone, and that you should not come to San Francisco now. But we want you to believe that it is a war zone, and that you should not come to San Francisco now.

San Francisco is a war zone, and you should not come to San Francisco now. But we want you to believe that it is a war zone, and that you should not come to San Francisco now.

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Aircraft Production Specialists Speed Up Output...



Official U. S. Navy Photograph

...by building standard low-cost DELTA DRILL PRESS units into this ingenious jig...

By hundreds of applications similar to this one at Curtiss-Wright, war industry has tested and proved a new approach to tooling which may save you thousands of dollars in converting to peacetime production:

Instead of getting along with slow, costly methods—or tying up heavy capital in complicated special machines which are slow to build and difficult to adapt—you build your own special set-ups with low-cost stock-model Delta units or batteries.

The trunnion jig in the picture is an excellent example. Equipped with two standard 14" Delta Drill Press heads attached to hinged arms on carriages, it speedily drills over 200 holes on both sides of duralumin shapes, in "matched angles" requiring extreme accuracy. (Details on request.)

For a simple, safe, satisfactory solution of widely varied production problems—with results that are creditable to all concerned—write for "Tooling Tips" and latest Delta catalog.

MA-8

TEAR OUT AND MAIL THIS COUPON... TODAY

THE DELTA MANUFACTURING CO.
902 B.E. Vienna Ave., Milwaukee 1, Wisconsin

Please send me "Tooling Tips" and latest catalog of your full line of low-cost machine tools.

Name..... Position.....

Company.....

Address.....

City..... State.....

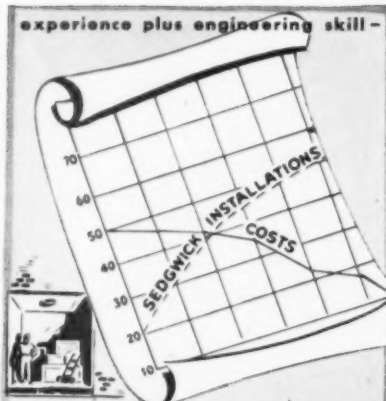
DELTA
MILWAUKEE
Machine Tools

C'EST LA GUERRE

San Francisco's welcome mat is in mothballs; a "keep away" sign has taken its place. For years Californians, Inc., painted tempting word pictures to lure tourists to the Golden Gate; this week in national magazines it sings another tune. Reason: San Francisco is literally jammed with war workers and the military; local travel facilities are overtaxed; restaurants and hotels are packed; and "any night is like a New Year's Eve on our streets—so visit us after the war is over."

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experience plus engineering skill -



HOW TO REDUCE COSTS

Properly planned materials handling is one way to reduce costs. But be sure to use the right equipment to do the job better and faster.

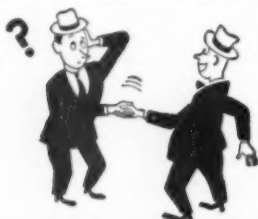
For over 50 years Sedgwick has been manufacturing engineered lifting and hoisting equipment to move men, material and merchandise... *efficiently*. So if you're planning production with an eye to "cost reduction" Sedgwick can help. Sedgwick engineers are specialists skilled in planning and designing complete layouts for materials handling equipment.

We've helped solve many manufacturers' cost reduction problems by solving their materials handling problems. Chances are we can solve yours. Tell us about them.

"MEN WHO KNOW ARE SOLD ON SEDGWICK"

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You don't remember his **NAME!**

Embarrassing? Yes, but only momentarily. Failure of your customers to identify your product, may have a far-reaching unfavorable reaction. Protect your identity, your product, future sales and good will by adequate, attractive identification. Kaumagraph Dry Transfers by the touch of a hot iron, put trademarks, lettering, directions on textiles, rubber, leather and synthetics. Presto-mark Labels have a thermo-plastic back—need no sewing on. Whatever your marking problem, a Kaumagraph product may be the answer.



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NEW YORK OFFICE • EMPIRE STATE BUILDING, N.Y. 1

labor, increase machine capacity, and eliminate peaks, soon will be extended to the Detroit and Beverly Hills stores.

• **Develops Slowly**—Cycled billing has been developing cautiously in the retail store field for three years. Remington-Rand, Burroughs, and National Cash Register are among the office machine companies plugging it. The first installation was said to be Good's at Wheeling, W. Va., and the first big store job, Filene's at Boston. Others include Bonwit Teller at New York, Gold's at Lincoln, Neb., Gilmore's in Oak Park, Ill., and Parker's at Davenport, Iowa.

The cycling method is based on the public utilities' pioneering the same idea. But cycling is usually a Siamese twin with nondescriptive or skeletonized billing, which derives from commercial banks' method of keeping on microfilm permanent records of customers' checks and deposit tickets.

• **How It Works**—The store adopting the skeletonized system makes no ledger entries to a customer's account until the day of billing; up to that moment, the customer's debits and credits for the month are kept in the form of sales checks and credit tickets tucked into a pocket in a visible index card.

Thus, instead of the normal four debit entries and two credit entries per month in a customer's ledger account, complete with perhaps a dozen operations per entry, the bookkeeper merely lists on the statement the individual amounts of the debit and credit tickets, without either description or dates.

When the machine enters the net amount of the month's account on the statement sheet, it simultaneously enters this one figure on a card transaction record which is the store's permanent file on the account.

• **Photographic Record**—Camera equipment records the tickets; the exposed film is sent out for processing. The customer receives the original tickets as his record of the transactions.

One of the equipment companies ascribes 90% of the labor and money savings to cycling, only 10% to skeletonizing. General experience indicates savings of 20% to 75% in handling accounts receivable ledgers, varying with the system replaced.

No difficulty has been experienced in providing equipment, since the visible index cabinets are wood, and WPB recognizes that when a store trades in perhaps 30 standard accounting machines for ten smaller units, the net result is to free 20 machines for war-industry use.

• **Pinch Is Increasing**—With manpower shortage pinching retailers increasingly, and with bookkeeping machines break-



FOR SMALL BUSINESS

Testimony by Secretary of Commerce Jesse Jones before the House Banking & Currency Committee last week on the Patman bill, covering surplus property disposal, ties in neatly with this week's Baruch report on the problem of postwar demobilization (page 17). Jones pleaded the case of the small business man. This week the Baruch program indorsed "preference to local ownership" and sale of surpluses "in lots of such size as to permit businesses of all sizes to participate."

ing down in the face of greater activity in customers' accounts, cycled-skeletonized billing seems on the edge of a boom. Index of the need: A major New York store had its November, 1945, statements, which normally would be mailed on Dec. 1, in customers' hands on Jan. 8.

Mandel's, Chicago, is completing a tryout of the method on its employees' accounts, will go all the way soon. Its State Street neighbors, Field's and Carson's, are reported on the verge. Gimbel's, May's, and a half dozen other major retail outfits are also giving the idea serious consideration. Next big installation, the trade believes, will probably be in the Bullock-Magnin chain on the Pacific Coast (BW—Feb. 12'44, p91).



LET'S HOLD A PEACE CONFERENCE—NOW

The public, during war times, may be content to go without your products. But it is quite possible that consumers may not want to wait too long for them after peace comes. Quick production of your products at that time may require "outside" manufacture of machine tooled parts or even of complete mechanisms.

So why not hold a "peace conference," in advance of peace, where, if you please, we can be invited in to discuss your future plans to produce civilian goods? It might be of great importance to you in speeding production later when delivery to market is urgent.

It's true we can not take contracts now for immediate delivery, because of our serving the Army and the Navy, as we have been for over twenty years. The Army-Navy "E"

and four stars have been awarded to Pollak for continued high achievements in the production of bomb racks, bomb shackles, fuzes and other war equipment.

We will not deny that this recognition of merit for our performance for our armed services is highly gratifying to us. But unless it also indicates to our future peacetime

customers that we can develop and build good products for them as well, its significance will have been lessened.

Pollak has the ability, equipment and plant to develop and produce not only fine precision products but also the capacity to produce them in required quantity—and on time.

That is why we believe our executives and engineers have much to offer in the way of valuable knowledge, techniques and experience. At your suggestion they will be glad to gather around your planning-for-peacetime-products conference table—without obligation.

**POLLAK
PRECISION
PRODUCTS**



Five Army-Navy "E" awards—the Flag and Four Stars—each of which symbolizes six months of Exacting Service to our Armed Forces, have been awarded to Pollak.

POLLAK MANUFACTURING COMPANY • ARLINGTON, NEW JERSEY

DEVELOPING • DESIGNING • FABRICATING • STAMPING • SPINNING • WELDING • FINISHING • MACHINE WORK



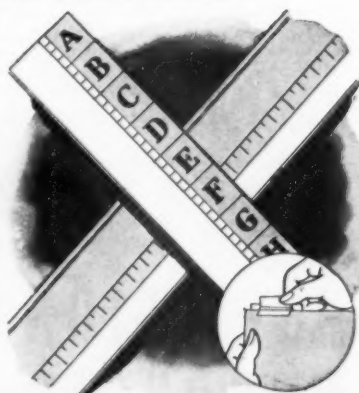
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Systems
Office Furniture
Bookcases
Stationers' Supplies

FINANCE

(THE MARKETS—PAGE 126)

Healthy Profits

Corporations made good showing in 1943, but industry is stressing reserves to take care of reconversion costs.

Corporate earnings of American industry in 1943, as reflected by annual statements already issued, may run around 9% higher (after taxes) than in 1942.

• **A Rosy Picture**—And the trend of earnings made public thus far indicates that 1943 profits, after consideration for the reserves set up for federal taxes, likely will be double the 1939 level, and possibly moderately above the previous 1929 peak.

This does not mean that stockholders, generally speaking, will benefit to a much greater degree, as the total of 1943 dividends rose only to \$3,541,000,000 from 1942's total of \$3,529,000,000 (BW—Feb. 5 '44, p. 49).

• **Trend to Reserves**—Dividends in 1943 probably fell short of equaling 50% of earnings after taxes, as compared with a 95% ratio in 1939. This is the result of management's growing concern over reserves to take care of reconversion costs and postwar dislocations.

The fact that some annual statements don't show special reserves for reconversion should not be accepted as evidence that these companies are ignoring steps to cover postwar contingencies. Some firms report large amounts of cash and governments that far outweigh their liabilities. Other companies are working toward the same goal by substantially reducing outstanding bonds.

• **Merchandising Gains**—As far as the individual industries are concerned, 1943 provided a somewhat different picture for each. The mining industry, for example, showed somewhat smaller profits after taxes in 1943 than in 1942. Also, it is doubtful that manufacturing companies (table, page 96) would have net after taxes much in excess of 1942 levels, possibly 5% to 6%.

The retail and wholesale trades, on the other hand, did do much better in 1943 than in 1942. They were probably able to show a year-to-year gain in net after taxes of close to 9%, bringing profits back again to their 1941 level.

• **Utilities Well Ahead**—However, the real "peaches and cream" went to the

*New York's First Bank
Established 1784*



*Personal Trusts
Since 1830*

“After This War---”

“We do not want to retain profits at this time just to have money in the bank, to pay fat salaries or extraordinary dividends. We want, however, enough cash left after this war is over to permit us to live, to develop new products, to provide employment and to achieve normal growth. We think we have earned the right to do that.”

From testimony of H. E. Bowman, Treasurer, Boeing Aircraft Company, before a Congressional Committee.

BANK OF NEW YORK

48 Wall Street—New York 15

UPTOWN OFFICE: MADISON AVENUE AT 63RD STREET

Commercial Banking

Executor and Trustee

Earnings Reflect Postwar Reserves

Manufacturing concerns face the biggest reconversion problem of all industry, and this makes the reports on their 1943 earnings of special significance.

Despite the squeeze of OPA price ceilings, soaring operating costs, and taxes, this group had a good year. Profits, as a whole, compared favorably with 1942, and many companies set aside substantial reserves to help take care of the reconversion period.

A large number of corporations probably have seen the peak of their wartime earnings, and 24 of the 50 in the tabulation below listed 1943 profits below those of the previous year. The companies in this compar-

ison are chiefly manufacturing companies, but they represent a wide range of products, and several merchandising companies are included for contrast.

Although this list represents a great many diversified lines of manufacturing, it does contain six steel companies, all but one of which showed a drop in 1943 earnings. If the steel group were eliminated from the table, the other 44 companies would show total profits some 5% greater than in 1942.

The following table lists taxes, reserves, and net income after taxes, with comparative figures for 1942 (000 omitted):

	1943			1942		
	Net After Taxes	Taxes	*Reserves	Net After Taxes	Taxes	*Reserves
American Can.....	\$11,386	\$8,850	\$1,811	\$12,867	\$12,475	\$1,559
American Woolen.....	5,475	27,000	6,000	4,824	26,870	4,000
Arlington Mills.....	939	3,775	1,250	920	4,392	1,250
Bethlehem Steel.....	32,125†	129,600†	15,000**†	25,388	151,500	36,918
E. W. Bliss.....	1,195	6,280	514**	2,712	7,599	1,236
Carrier.....	701	2,250	400	618	1,750	.....
Caterpillar Tractor.....	8,196	20,884	.....	7,002	15,312	.....
Chicago Flexible Shaft.....	1,155	1,072	36	1,142	1,067	36
Consolidated Paper.....	1,222	1,877	.....	1,063	1,215	.....
Continental Can.....	5,170	4,324	2,605	5,053	6,000	2,623
Cream of Wheat.....	1,031	1,194	.....	924	1,107	.....
Dresser Mfg.....	1,851	7,527	.....	1,603	2,959	.....
Ely & Walker.....	1,056	5,835	2,951	1,029	4,153	1,884
Emerson Electric.....	809	.....	.....	671	1,368	.....
Emerson Radio.....	836	2,053	.....	651	484	.....
Endicott Johnson.....	2,310	5,100	6,264	2,344	5,478	5,086
Foot Bros. Gear.....	758	3,915	812	914	5,677	212
General Baking.....	1,729	2,210	750	2,287	1,615	250
General Steel Castings.....	1,300	6,400	1,200	2,003	8,492	600
General Tire & Rubber.....	1,740	5,175	1,187	1,383	3,325	1,284
Grieff Bros. Cooperage.....	478	2,712	1,050	849	2,709	650
G. W. Helme.....	1,197	950	.....	1,226	938	.....
Hercules Powder.....	5,705	18,069	2,530	5,547	18,083	2,000
Hooker Electro-Chemical.....	1,210	3,583	.....	1,442	4,191	100
Jewel Tea.....	1,156	1,416	650	1,349	2,239	650
Johns-Manville.....	4,655	11,529	6,312	5,570	17,590	4,131
Jones & Laughlin.....	9,512†	19,650†	2,000**†	10,141	24,000	5,044
Kroger Grocery.....	5,009	7,659	2,512	4,649	7,177	2,515
Lingett & Myers.....	15,656	18,946	884	14,293	16,576	384
P. Lorillard.....	3,572	4,774	.....	3,915	3,495	.....
Mathieson Alkali.....	1,273	1,550	411	1,206	1,450	411
John Morrell.....	1,447	975	200	1,548	760	200
Mueller Brass.....	1,038	2,960	801	935	3,143	812
G. C. Murphy.....	2,989	6,229	515**	2,924	6,457	553
National Steel.....	11,698†	26,350†	750**†	11,930	30,300	9,468
N. Y. Air Brake.....	994	2,430	250	1,042	2,610	250
Oliver Farm Equip.....	1,762	1,250	2,700	1,640	1,200	2,700
Real Silk Hosiery.....	450	600	250**	26	.....	200
Rustless Iron & Steel.....	2,236	6,912	240**	2,645	7,455	400
Saco-Lowell.....	705	3,525	1,750	908	1,430	1,750
Sutherland Paper.....	821	1,721	.....	738	1,410	.....
U. S. Gypsum.....	5,038	5,116	877	5,652	7,223	877
U. S. Leather.....	1,064	475	3,508	1,420	450	3,091
U. S. Rubber.....	14,164	59,193	5,945	8,381	26,474	4,464
U. S. Steel.....	63,642†	88,000†	25,000**†	71,249	153,070	100,181
Wayne Pump.....	810	624	110	817	435	50
Westinghouse Elec.....	22,355†	82,008†	.....	17,367	49,602	26,168
Wilson.....	7,403	8,600	4,750	7,319	7,500	5,900
F. W. Woolworth.....	21,951	21,200	.....	23,538	22,200	.....
Youngstown Sheet & Tube	8,038†	18,400†	1,650**†	10,306	24,700	9,093

*Reserves for contingencies or postwar emergencies (not pensions, insurance, etc.) at close of fiscal year.

**Actual amount of reserves not reported.

Figures represent sums charged against 1943 earnings for contingencies, etc.

†Preliminary 1943 earnings report.

transportation and the utility group. In the case of the former, net after taxes disclosed about a 15% year-to-year gain, thus stood at a level almost 2½ times that of 1941, while the utility group was able to report a net after taxes almost 16% higher than the year before.

Of six steel companies reporting Youngstown Sheet & Tube, with a drop of 22% in net after taxes, is the only one which shows a sharp decline in earnings. Bethlehem Steel reported a 26% rise in net. However, the other four steel units couldn't match their 1942 nets and U. S. Steel earnings were off 10%. I. S. Olds, Big Steel chairman, in announcing the preliminary 1943 earnings report, said that U. S. Steel had invested \$75,000,000 in government bonds to cover after-the-fact costs of reconversion and deferred maintenance, but he didn't paint a very encouraging picture of the industry's present earnings situation (BW—Feb. 5, 1944, p15).

●Cites Rising Costs—In fact, Olds said that the corporation's drop in earnings was directly due to the substantial increases already seen in steel payroll costs and other operating expenses. He also blamed price ceilings which he said necessitated the selling of a number of products, including rails, at prices below manufacturing costs.

●Depends on War—In the first quarter of 1944, it is expected that industrial earnings in general will continue at about the same rate as in the 1943 calendar year. How they will be subsequently, largely depends on the status of the war with Germany. If it were to end around midyear, the level of earnings will decline, possibly as much as 12% to 18%.

CREDIT FOR STUDEBAKER

The Studebaker Corp. has announced that it has completed arrangements with a nation-wide group of 25 banks, including New York's Chase National which will act as the clearing agent, for an \$80,000,000 line of credit under a VT (BW—Dec. 4 '43, p107) agreement.

This provides for loans up to \$50,000,000 in units of \$4,000,000 on notes of not more than 90-day maturity. Interest on borrowings is to be at the rate of 2½% per annum, and under the terms of the agreement, the company is obligated to pay three-eighths of 1% on the unused portion of the credit.

Establishment of the credit, according to the company, which in mid-November had unfilled government contracts in excess of \$700,000,000, is to provide working capital and to replace government advances formerly used for that purpose on war contracts.



Property Protection in Wartime

As the time draws near when our armed forces face their supreme test in the mightiest invasion of history, any wartime effort on the home front seems small by comparison.

Nevertheless, the task of America's fighting men and her Allies is of such magnitude that every ounce of strength of mind and hand that we in this country can muster to their support in whatever way we can is necessary and imperative.

This is why the fire insurance industry has been and is now geared to war; why it is alert through its inspection and engineering facilities in protecting the nation's industrial plants which have amazed the world with their productive power.

Through this vigilance, many disastrous fire losses have been prevented—losses which in wartime, when manpower and materials are so vital, would have been as damaging as enemy victories. Thus, in a real sense, watchfulness in fire prevention has meant a participation in the winning of the war by the "industry which protects other industries."

Meanwhile, the agents and brokers of the capital stock fire insurance business, as part of the Citizen Army, are a source of strength throughout the nation. By seeing to it that property is adequately insured, national morale is promoted, permitting greater concentration on the war effort.

Dollars for fire insurance premiums today are going in large part into U. S. Government Bonds, thus helping to bear the cost of war. This Company, for example, invested *all* of its new premium dollars during the last nine months of 1943 in War Bonds, in addition to its regular purchases of these securities.

☆ ☆ ☆

In submitting herewith our annual statement we take pride in stating that more than 50% of the male employees of The Home Insurance Company are now with the armed forces.

[Signature]
President

☆ THE HOME ☆
Insurance Company
NEW YORK

FIRE • AUTOMOBILE • MARINE

STATEMENT

December 31, 1943

ADMITTED ASSETS

Cash in Office, Banks and Trust Companies	\$ 20,681,229.69
United States Government Bonds	27,406,591.91
All Other Bonds and Stocks	69,192,158.38
First Mortgage Loans	376,083.48
Real Estate	3,825,040.10
Agents' Balances, less than 90 days due	9,265,751.61
Reinsurance	
Recoverable on Paid Losses	1,286,831.00
Other Admitted Assets	73,214.65
Total Admitted Assets	\$132,106,900.82

LIABILITIES

Reserve for Unearned Premiums	\$ 49,199,317.00
Reserve for Losses	13,486,728.00
Reserve for Taxes	5,130,000.00
Reserve for Miscellaneous Accounts	1,805,540.16
Funds Held Under Reinsurance Treaties	38,176.37

Total Liabilities Except Capital \$ 68,859,761.53
Capital 15,000,000.00
Surplus 48,247,139.29

Surplus as Regards Policyholders 63,247,139.29

Total \$132,106,900.82

Note: Bonds carried at \$3,528,921.20 amortized value and cash \$50,000.00 in the above statement are deposited as required by law. All securities have been valued in accordance with the requirements of the National Association of Insurance Commissioners. On the basis of actual December 31st market values, total Admitted Assets would be increased to \$135,422,810.53 and Surplus to Policyholders would be increased to \$66,563,049.00.

DIRECTORS

LEWIS L. CLARKE	WILLIAM S. GRAY	CHARLES G. MEYER
WILLIAM L. DeBOST	WILFRED KURTH	
EDWIN A. BAYLES	GORDON S. RENTSCHLER	
ROBERT GOELET	HERBERT P. HOWELL	
FRANK E. PARKHURST	GEORGE MCANENY	
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THE HOME, THROUGH ITS AGENTS AND BROKERS, IS AMERICA'S LEADING INSURANCE PROTECTOR OF AMERICAN HOMES AND THE HOMES OF AMERICAN INDUSTRY



REGIMENTATION OR LIBERATION

Which?

Business and Industry must make the choice.

If we want soft security we must accept Government regimentation and make the most of it.

If we want liberty of action, and I think we do, we must stand ready to "take care of ourselves".

Many industries today are living up to the limit of their incomes. They've stepped up their office and plant "standards of living" to match artificial and temporary levels of volume, and have little left for emergencies.

We in the executive group, have by no means been free of the "take care of us" philosophy. We cry to be free of governmental regimentation and control—but when something threatens where do we go for help? To Uncle Sam!

We've criticized individuals who want to be "taken care of", who want security of food, clothing and shelter.

A business is a corporate citizen of this country. As a citizen it can no more have freedom and protection than can the individual. If a business wants to be "taken care of", then it must take the consequences.

Who knows when Business and Industry will be "laid off without notice". In some places it's happening today. Are you ready? Conversion soundly planned? Postwar product well in hand?

Geo. P. Trundle Jr.
President

1919-1944

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Bankers' Target

A. B. A. urges withdrawal of government capital now being used interest-free for variety of farm credit purposes.

Organized American bankers, with one victory behind them, are moving on a second objective in their campaign to "end competition of socialized credit with the chartered banking system" in the agricultural field.

• **Legislation Urged**—The bankers, as represented by the American Bankers Assn., are now urging Congress to remove government money from farmer-owned and farmer-operated units under the gigantic Farm Credit Administration of the Dept. of Agriculture, which as a whole has more than \$2,500,000,000 on loan to farmers and their cooperatives.

The present objective is passage of the Fulmer bill, which would require withdrawal (over a ten-year period) of \$120,000,000 government capital being used interest-free by the Production Credit Division of FCA.

• **Free Money Is Hit**—This division, through 523 production credit associations (farmer-operated cooperatives), enables member farmers to borrow production funds at an average cost (in 1942) of 5.26% annually.

Country bankers claim they could outmatch the association, both in service and in cost, were it not for the cooperatives' free use of federal money, which the bankers charge comprises in effect an annual subsidy of \$3,200,000, or more.

• **Earnings Set Aside**—Withdrawal of federal funds, bankers believe, would mean consolidation for many production credit groups and death for some. Farmers also fear this, although the groups are setting aside earnings as reserves, and 5% of the farmer's loan is invested in association stock, thus gradually to build up full ownership by farmers.

Approximately 300 production credit groups are now operating without recourse to government capital, but those that still need it are in regions where credit rates to farmers always have been high.

First victory of the bankers was over Regional Agricultural Credit Corp., a Hoover creation to operate in the farm field. RACC lent about \$330,000,000 in the early thirties, mostly to bail out stockmen and ranchers, and was then superseded by New Deal credit facilities.

But it was revived with \$200,000,000 of Reconstruction Finance Corp. credit early in 1943, to make loans to farmers solely to increase production—county war boards approved loans. It lent about

\$30,000,000 to 100,000 borrowers for the 1943 crop season in nonrecourse form (the only security for the loan being the crop to be raised) and undoubtedly stimulated production of war crops.

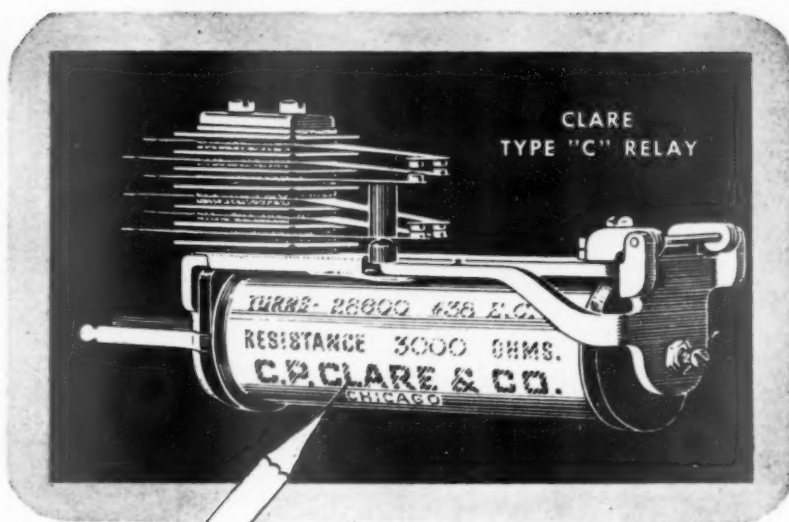
• **Activity Restricted**—But bankers rose in wrath, and succeeded in getting Congress to restrict RACC specifically to cases where farmers absolutely couldn't get credit elsewhere.

Bankers disagreed among themselves on whether to drive aggressively to restrict government competition. Big banks, until 1943 pretty well in control of the American Bankers Assn., were indifferent. Country bankers, led by A. L. M. Wiggins of Hartsville, S. C., demanded action. At a tense 1943 convention, A.B.A. elected Wiggins president, and he in turn has marshalled the group's full resources in the drive.

• **Another Target**—There is still another logical target for private farm mortgage lenders—\$141,000,000 federal money carried as "paid-in surplus" on the books of the Federal Land Banks. This was advanced by Congress to take the place of money those banks might have collected on farm mortgage loans, if Congress hadn't declared a moratorium in the dark days of the thirties.

P.S.

General Mills, Inc., has wasted no time in using its recently granted authorization to issue up to \$20,000,000 of ten-year debentures to provide funds to carry out present and postwar expansion plans (BW—Feb. 5 '44, p. 53) and has privately placed a block of \$10,000,000 24% bonds with a group of banks. . . . Since stockholders of the Chicago Mail Order Co. approved the sale of stock to Lehman Brothers, the New York banking house, which assured the latter a "piece" of the business (BW—Nov. 6 '43, p. 110), joint conferences have been under way concerning the Chicago concern's future plans. Evidence that things are being accomplished is furnished by the news that the Lehmans have arranged a private sale to Equitable Life of \$2,000,000 Chicago Mail Order 34% 15-year debentures to finance a contemplated entrance into the retail field and postwar plans for expansion of its basic mail order business. . . . The potential advantages accruing to Stokely Bros. & Co., Inc., from its purchase last summer of an ex-investment trust (BW—Sep. 18 '43, p. 105) are entirely clear now. If Stokely can use its resulting new tax base, Wall Street analysts say it might earn \$2.25 a share in its fiscal year ending May 31, 1944. However, if the old base should have to be used, analysts believe that net will not run much above the \$1.45 a share reported in the 1943 period.



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In short, Clare "Custom-Building" is not a descriptive term; it is a method of construction. And "custom-building" by Clare engineers means always precise designing and manufacture, and the use of the finest materials available.

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CLARE RELAYS



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How can industry speed up production with inexperienced operators? Here's one way: When it's materials to be moved, the answer is a speedy, convenient, Lo-Hed Electric Hoist. With a Lo-Hed back-breaking *hand-*handling is eliminated.

Inexperienced hands can dig right into faster productive work with a Lo-Hed. It's easy to operate. Absolutely no training time is required.

Lo-Hed Electric Hoists are designed for consistent year-in and year-out

operation, built so that maintenance attention is held to a minimum. Get full information today.

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LABOR

Clearing the Path

To ease shifts to war jobs, Chicago unions waive initiation fees; employers agree to rehire those leaving unessential work.

Chicago employers and labor leaders last week took a long step forward in removing the two major obstacles from the path of the worker who wants to move from a less essential but more permanent job into war work.

• **Navy Man's Suggestion**—Their action was developed under gentle nudging from Com. R. J. Twyman, civilian personnel officer for the Ninth Naval District, whose speech suggesting this program before a regional War Manpower Commission meeting resulted in bringing together for a frank talk the local C.I.O. and A.F.L. heads and the top men of the Chicago Assn. of Commerce.

The basic fact upon which everybody agreed is that thousands of able-bodied men over 38 are holding down less essential jobs that women might fill.

• **The Two Hurdles**—The principal reasons that a man continues to operate an office-building elevator or drive a taxicab instead of building airplanes or landing craft concern his union affiliation and his future employment.

Labor union officials took the initiative by agreeing that the union worker who shifts into a war plant where another union is recognized may retain his original union membership exempt from payment of dues, and may become without initiation fee a temporary dues-paying member of the union in his new employment.

• **No Document Signed**—This understanding was worked out by delegations headed by Victor A. Olander, secretary-treasurer of the Illinois Federation of Labor (A.F.L.), and Samuel Levin, president of the State Industrial Union Council of Illinois (C.I.O.).

No formal document was drafted or signed. Both A.F.L. and C.I.O. took the attitude that they would get better results by promoting the spirit of the understanding as to what they are trying to bring about, rather than formulating a complex set of regulations to cover the innumerable variations of conditions that would be met in actual practice.

The effectiveness of the agreement necessarily depends on how well it takes with the locals which will be working with it, but proponents hope that it will be respected by Illinois members of



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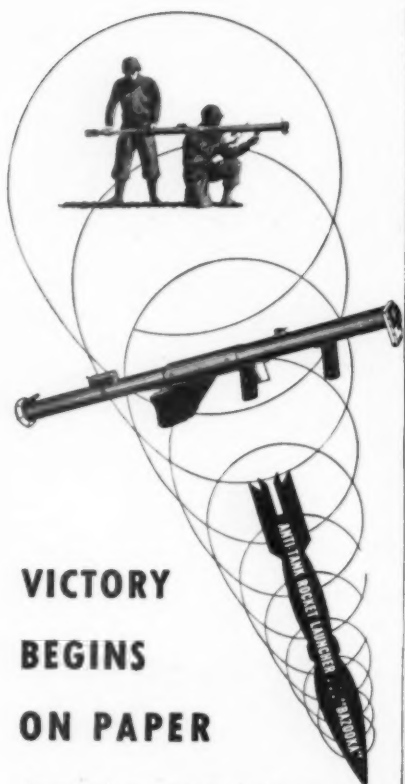


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HAMILTON PAPERS



both labor houses all the way across the board.

• **Statement of Policy**—Next day after the unions got together, the directors of the Chicago Assn. of Commerce adopted a formal statement of policy which had been worked out in conjunction with the presidents of the Illinois Manufacturers Assn. and the Employers Assn. of Chicago.

This statement subscribes to and recommends to all members and other employers the policy of making a sincere effort to re-employ all employees who shift from less essential jobs to war work, and of agreeing that to the greatest possible extent the seniority and other rights of workers who leave for war work will be safeguarded.

• **To Seek Agreements**—Union officers plan to use this statement as the basis for obtaining from individual employers agreements covering their employees outbound for war plants. They feel sure that many thousands of bartenders, retail clerks, building service workers, building tradesmen, and other able-bodied men will move into essential occupations as soon as they are shown how they can take war jobs and, after the jobs are completed, can get back into their old occupations under whatever conditions exist there at the time.

What brought the Chicago agreement to acceptance was WMC's proposal to shift the area into Group I (acute labor shortage), thereby making it practically impossible for new war contracts to be awarded there or for old war contracts to be renewed.

A BULGE FOR LITTLE STEEL?

When the regional war labor board in Kansas City found itself up against the Little Steel wage formula in its consideration of wage rates for southwestern flour mills, its chairman, Edgar L. Warren, found a way around it.

"Sound and tested going rates" was the yardstick which the regional board applied in approving increased wages for 55 classified jobs in the flour mills—a yardstick which stretched beyond the 15% permitted by the Little Steel formula with wages ranging from 65¢ an hour for common labor to \$1.20 for head millwrights.

"We have authority under the wage stabilization act," ruled Warren, "to approve wage increases up to these stabilized levels (going rates) to correct wage inequities."

Urged to participate in the government's flour-purchasing program (BW—Feb. 12 '44, p. 36), yet reluctant to expand operations without assurance of sufficient manpower, millers are hoping the National War Labor Board will support the regional board's decision.

Foremen Protest

NLRB hears pro and con of unionization for supervisors from employers, unions, and the minor bosses themselves.

Whether foremen should be unionized was the question argued before the National Labor Relations Board last week by employer and labor groups.

• **Complaints Dismissed**—The question of how much, if any, of the Wagner Act applies to supervisory employees arose from a protest by the Foreman Assn. of America against dismissal of two complaints that foremen were discharged because they participated in F.A.A. activities. The accused employers were Republic Steel Corp. and Soss Mfg. Co.

NLRB's refusal to proceed in the two cases was a consequence of its Maryland Drydock decision (BW—May 15 '44, p. 8). In that case, the board split, 2 to 1 in its declaration that foremen do not constitute an appropriate unit for collective bargaining under the terms of the Wagner Act.

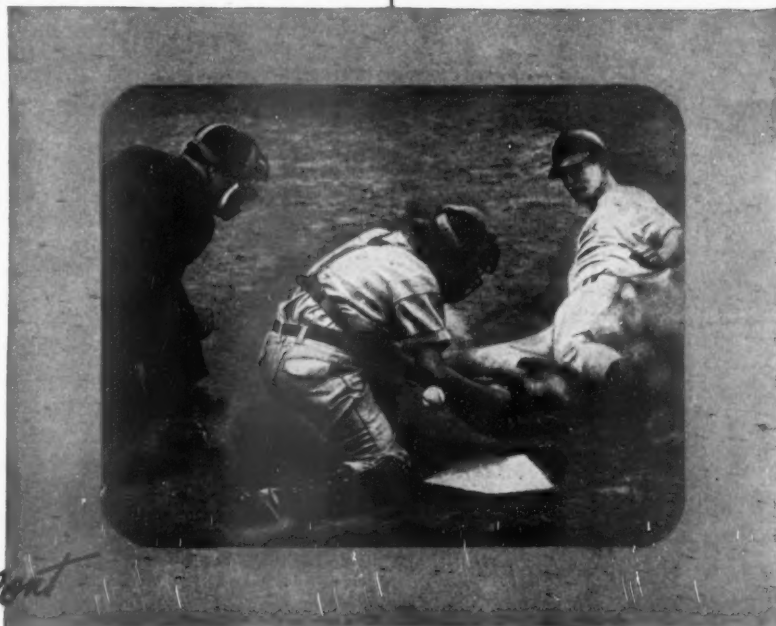
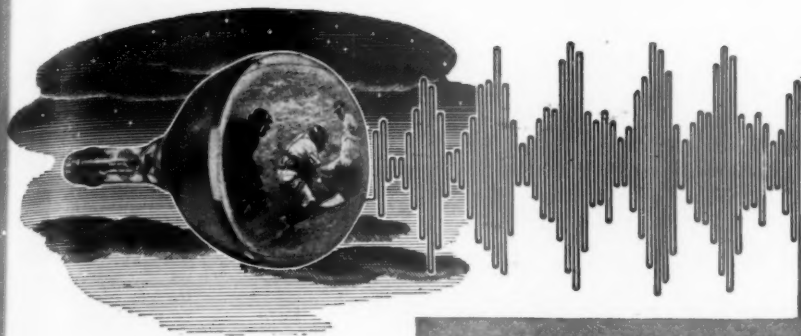
• **Following Through**—Although the Maryland Drydock case only decided that organizations of supervisory employees were not entitled to certification, the board has been refusing to act in any type of case where foremen are involved.

When the A.F.L. and C.I.O. joined the Foreman's Assn. in demanding a reconsideration of supervisors' rights under the act, NLRB scheduled last week's public hearing.

• **Hearing Jammed**—The response to the board's announcement of an open discussion of the issues literally overwhelmed NLRB and its accommodations. In addition to official spokesmen for the A.F.L., C.I.O., and the foremen's union, 13 employer representatives were heard, and an audience of 150 jammed the small hearing room.

Companies and employer organizations which presented arguments were the National Assn. of Manufacturers, the U. S. Chamber of Commerce, the Michigan Manufacturers Assn., the Southern Coal Producers Assn., the National Coal Assn., the Western Pennsylvania Coal Operators Assn., the American Mining Congress, the Southern States Industrial Council, the New York Realty Advisory Board, the Shipbuilders' Council, Republic Steel, Chrysler, and Youngstown Sheet & Tube.

NLRB limited the hearing to one day and permitted the labor and industry representatives to divide the time as they chose, then gave all interested parties until Feb. 29 to present written



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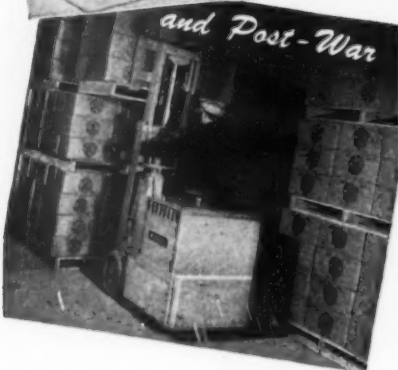
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MINING BY MUSIC

In Nigeria's Bauchi Province, a primitive form of industrial music sets the tempo for native miners who produce the element, columbium. Equally primitive are the transport facilities (right) by which this valuable mineral is started from alluvial deposits in rugged African mountains toward British and American war furnaces. Considered practically useless as recently as World War days, this steel-gray ore is now vital in producing stainless steel for aircraft and chemical industries. Used in small quantities, it reduces steel's carbon content. From a bare trickle a few years ago, American imports of columbium rose to 600,000 lb. in 1940; they have zoomed since the war began. The mineral is now worth about \$2.25 a pound.



briefs, exhibits, and other documents.

• **All or Nothing**—On one point, a clear majority of both industry and union representatives agreed: that it should be all or nothing for foremen under the Wagner Act. If NLRB goes along with this view, either (1) the Maryland Drydock decision will have to be reversed and foreman unions will have to be accepted as collective bargaining agencies by employers, or (2) no supervisory worker will be entitled to protection under the Wagner Act, and those who engage in organizational activities, as in the debated cases, will do so at their own risk.

The basic employer argument against Wagner Act protection for foremen is that foremen represent management,

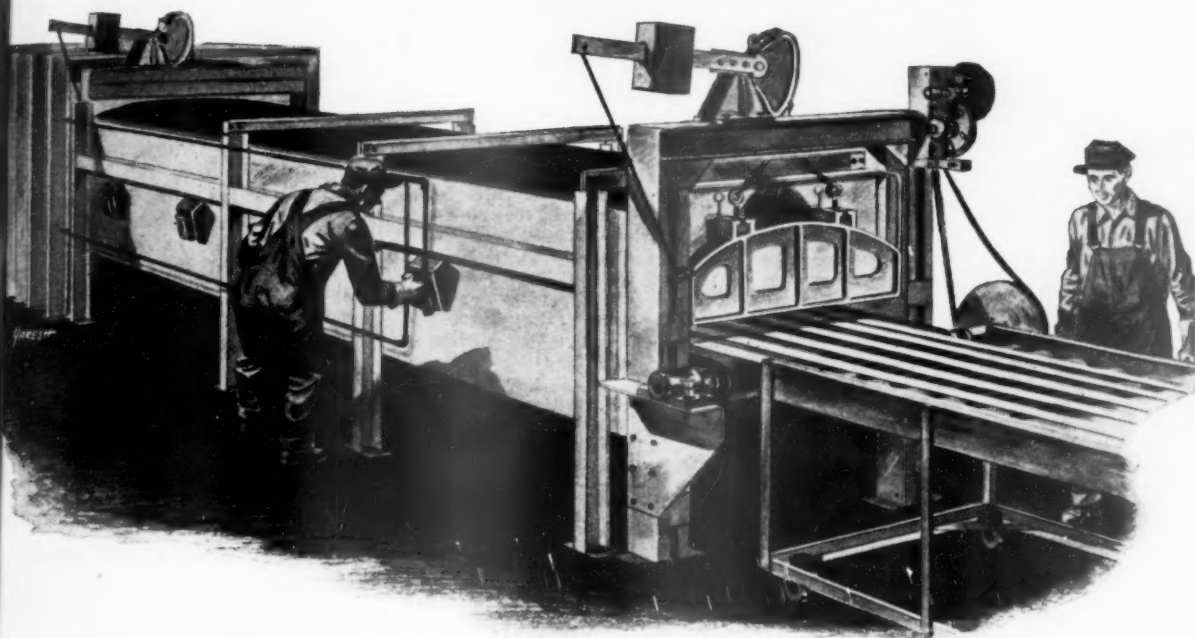
that unionization of them would upset labor-management relationships.

• **Grievance Procedure Cited**—Employee spokesmen cited the custom of handling employee grievances at the first level by negotiation between the aggrieved employee or his union committeeman and the departmental foreman.

The labor rejoinder was that such a foreman function was not an essential part of industrial relations programs, that existing contracts could be changed in this regard without necessitating a major operation.

• **Straws in the Wind**—From questions and comment offered by individual members of NLRB during the course of the hearing, it seemed apparent that a majority sympathized with foreman

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WATCH springs and corset stays are rarely seen by the person who uses them, and neither are piston rings or bomb fuses. But the function served by those little parts in the finished product, *is* mighty important to the user.

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That policy has won us many friends, and in our 30 years of business we honestly don't know of a single dissatisfied Athenia customer.

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unionization. Chairman Harry A. M. lis, who dissented in the Maryland Drydock case, maintaining that foremen were entitled to Wagner Act benefits seemed still to hold that opinion. John M. Houston appeared to incline in the same direction and to be primarily concerned with keeping foreman unions independent of the C.I.O. and A.F.L. The third board member, Gerald D. Reilly, gave no indication of having shifted his position on the matter.

Whatever the ultimate decision, the movement to organize foremen will be only impeded, not stopped, by a reiteration of the Maryland Drydock doctrine. Pointed evidence to this effect was provided by the absence of John L. Lewis and any United Mine Workers representative from the hearing. Nor did Lewis or his lieutenants even bother to make a statement. They felt secure in the knowledge that if their union was strong enough in the coal fields it could induce management to bargain with it for foremen.

Seeking a Voice

Westinghouse federation of salaried workers proposes a nation-wide union as a sounding board for white-collar workers.

The fall guy in the whirligig of price rises and wage boosts generally is the white-collar worker, and a move is under way to organize these salaried employees into a national union with sufficient strength to gain greater attention from employers and Congress.

Behind the organizational drive is the Federation of Westinghouse Independent Unions, a congress of 14 independent unions with 13,000 members employed by Westinghouse Electric & Mfg. Co.

• **Indifference Is Blamed**—In recent months, Congress and governmental agencies have given some attention and sympathy to the plight of the white-collar worker (BW—Jan.29'44,p99). But L. F. Bollens of Pittsburgh, chairman of the federation, believes the lack of organization strength is responsible for the indifferent attitude of lawmakers to the white-collar problem. There is a lush field for organizing, for of the country's 15,000,000 salaried employees, including school teachers, store clerks, and industrial workers, only 100,000 of them have been organized in the industrial fields, Bollens estimates.

Plans for a nation-wide white-collar union were conceived this month at the federation's quarterly meeting, and a liaison committee was named to com-

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For many men and many companies, the "post-war" problems are problems of today, not of some distant future.

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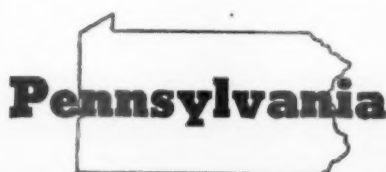
Hundreds of companies buy raw materials or semi-finished products from Pennsylvania industries, haul them west or north or south to manufacture into finished products and then haul them back to Pennsylvania to sell, or back through Pennsylvania to the eastern seaboard markets, and to the export market.

That's costly. Bad logistics can ruin an army . . . or a business.

Lots of companies, in the last few years, have moved their plants or branches of their plants to Pennsylvania where they get close to their raw materials sources, closer to their ultimate markets and nearer the big post-war foreign markets.

Maybe you should do the same thing. Field representatives of the State Department of Commerce will be glad to talk with you, and tell you what your company could find in Pennsylvania . . . in raw materials, labor, plant sites, costs, taxes and all the other practical considerations that affect your company's profits and losses. Write, wire or phone to Harrisburg, Pa.

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municate with unions of salaried employees which have been certified by the National Labor Relations Board, and with individuals anxious to promote such groups. A meeting is to be held first in Pittsburgh to consolidate salaried workers' groups in that area. Later meetings will include more territory until, the sponsors hope, the idea blankets the nation.

● **Around a Nucleus**—To speed a national organization, certified independent unions would serve as a nucleus. Salaried employees in the electrical industry are best organized; in addition to the Westinghouse employees, 10,000 white-collar workers of General Electric Co. have their independent union. There are similar organizations in the banking and insurance fields. The C.I.O. United Office & Professional Workers of America claims 50,000 members, but Bollens and his associates do not contemplate affiliating with either the C.I.O. or the A.F.L.

Largest of the independent groups is the Westinghouse federation, whose original unit, the Assn. of Westinghouse Salaried Employees at East Pittsburgh, Pa., has 6,600 members. A stimulant in promoting organization of the East Pittsburgh group was a 10% pay cut given Westinghouse salaried workers, but not shared by wage workers, on June 1, 1938. The East Pittsburgh unit was organized late in 1938, and the federation was set up in April, 1939, to include also salaried groups from the Sharon (Pa.) and Derry (Pa.) works. By June 1, 1939, the pay cut had been restored.

● **Certified by NLRB**—After a lopsided victory in a "yes or no" election supervised by NLRB, the East Pittsburgh association was certified on May 22, 1940, as bargaining agent for about 3,000 white-collar workers. Since then, master contracts and key sheets, setting up salary ranges for various classifications of employees and defining the duties of the various classifications, have been negotiated.

Bollens and his associates frequently have appeared before congressional committees in behalf of white-collar workers. Before these committees, Bollens has advocated a salaried incentive bonus system, modification of the Little Steel wage formula to eliminate the frozen inequality between hourly and salaried workers, and permission to employers to grant increases up to the limit of the Little Steel formula (15% above January, 1941, levels) without approval of the National War Labor Board.

Reluctance of the salaried worker—often a rugged individualist—to organize previously is laid to the fact that he felt he enjoyed benefits, such as paid vacations and sick leave, which were not



Energetic Leo F. Bollens heads an ambitious new plan to organize the nation's forgotten white-collar workers.

available to hourly paid employees. But in recent years, organized labor has obtained many of these benefits for hourly workers and wiped out the differential between the two classes. In addition, the hourly employee has fattened his pay envelope with overtime and incentive payments. While present hourly rates for labor are roughly 40% above 1935 levels, the base rates of salaried employees have remained essentially unchanged, Bollens contends.

With hourly employees usually outnumbering salaried workers by a ratio of four to one in industry, federation leaders believe white-collar workers would receive only the crumbs from the negotiation table if they affiliated with unions of hourly workers.

LABOR ADVICE ASKED

WPB Chairman Donald M. Nelson has met mounting labor resentment over the government's failure to consult labor leaders on reconversion policy by promising to confer with labor in the future on the same basis as industry.

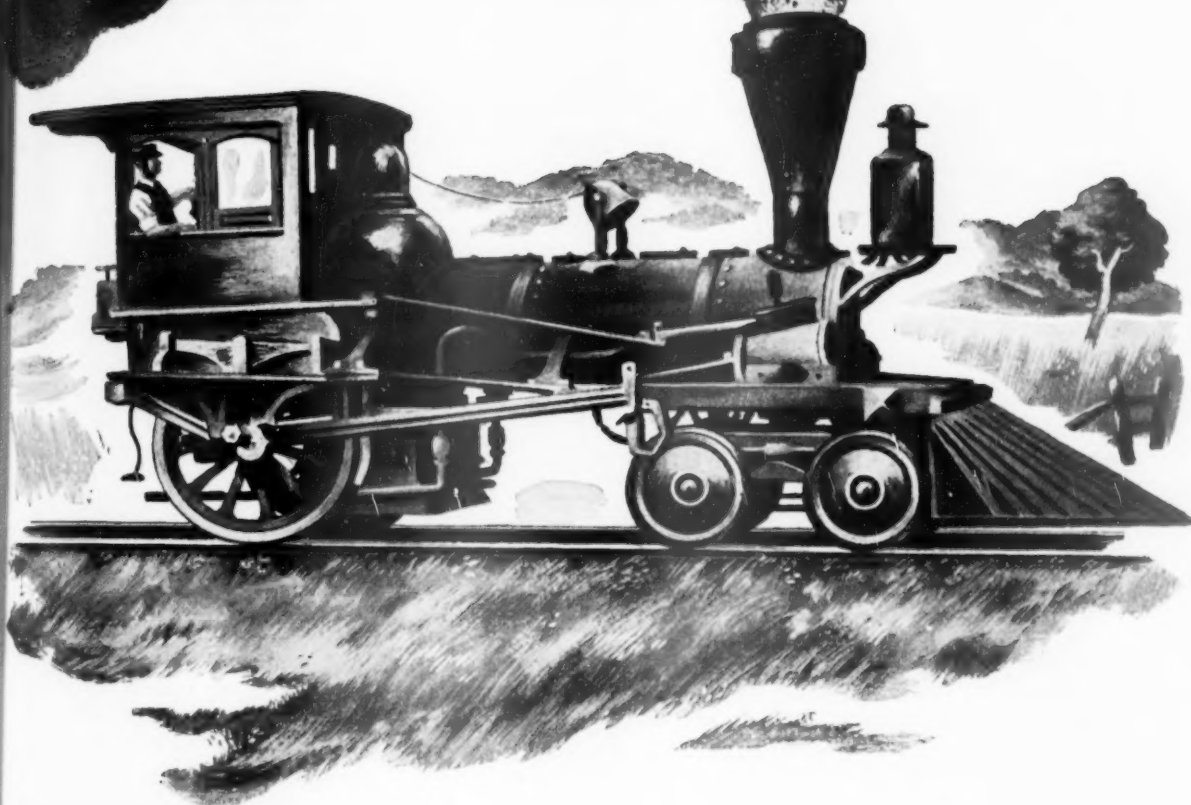
Since Nelson already has agreed to take no major step affecting any industry without calling in the industry advisory committee concerned, his promise to labor is sweeping.

It will be carried out either through the formation of labor advisory committees to WPB, supplementing a few already in existence, or by calling in the individual leaders of unions concerned with specific problems.

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It has taken some doing to handle the war load thrust upon the railroads — more than twice as much freight and nearly four times as much passenger traffic as in ordinary times.

And, because of other war needs for materials, it has had to be done with very little additional equipment.

But with the good sportsmanship of travelers and the surpassing aid of shippers the job is being done.

Doing it, though, demands that the railroads use every piece of serviceable equipment or equipment which can be made serviceable. And

so they've got everything working now to do the job that must be done now.

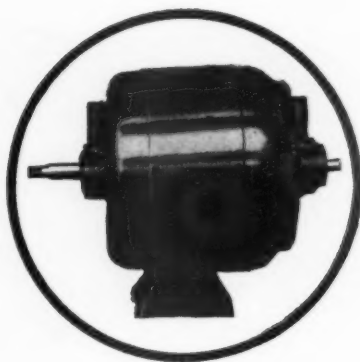
But there's still a job ahead — first and foremost, a growing war job, and after that the work of making these railroads ready for the service of the America of the future.

That's why the railroads are not only working but are studying so as to keep ahead of their appointed tasks — to meet the nation's war needs now, and later to provide for peacetime America the finest transportation that experience, plus modern materials and science, can devise.



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If you are designing or building postwar products which will require fractional HP motors, our engineers, backed by 68 years of experience in special motor design, would like to talk with you about your motor problems. There is no obligation.



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M. of M. with Twist

NWLB evolves a formula for shipyards case preserving effect of C.I.O.'s union shop but protecting A.F.L. members.

The National War Labor Board has eased out of a tight spot with a compromise decision on the closed shop issue involving two adjoining shipyards, one organized by the A.F.L., and the other by the C.I.O.

The case, involving the South Portland Shipbuilding Corp. and the Todd Bath Shipyard, Inc., both of South Portland, Me., which merged into the New England Shipbuilding Corp., came to NWLB on appeal from the board's Shipbuilding Commission.

• **C.I.O. Won**—The A.F.L. Metal Trades Dept. had a closed shop in the South Portland Shipbuilding Corp. yard prior to the merger, and the C.I.O. Industrial Union of Marine & Shipbuilding Workers had a union shop in the Todd Bath yard.

The C.I.O. union won a National Labor Relations Board election to determine the bargaining agency for the merged operation and then demanded the extension of its union shop to cover both yards, employing 20,000 workers.

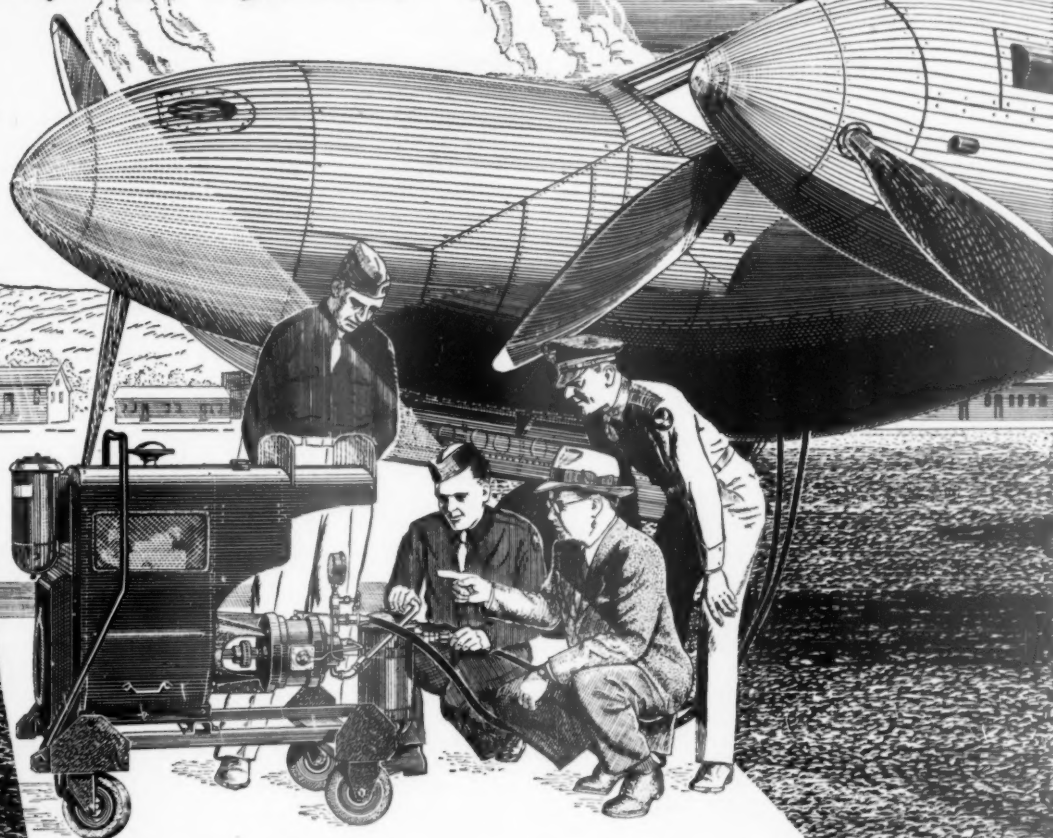
• **Status Quo**—NWLB policy on the closed shop and union shop has been not to extend them during the war, but to preserve those already established. The Shipbuilding Commission granted maintenance of membership in the merged shipyards, and the C.I.O. union appealed this award to the parent NWLB. Maintenance of membership is the compromise formula evolved by NWLB to effectuate its status quo policy. (M. of m. requires that union members preserve their membership in good standing during the life of the labor contract.)

On appeal, the board ordered the union shop for all new employees, but provided a flat maintenance-of-membership clause for present employees.

• **How It Works**—Under this compromise, A.F.L. unionists now employed were left free to join or not join the C.I.O. C.I.O. members who had been subject to the union shop at Todd were bound to maintain their membership since the 15-day "escape period" for withdrawal from the union, usually incorporated in m. of m., was not provided. All new employees must join the C.I.O.

The union shop, as distinguished from the closed shop, requires employees to join the union after they are employed. Under a closed shop, only union members may be hired.

On The Nose!



"...and TOMORROW too, it will protect YOU"

What these men see, we little thought would be possible to see a few months back. When the hand on the dial they are watching shows "on the nose," they have visual evidence that the hydraulic circuits of their plane are operating 100%.

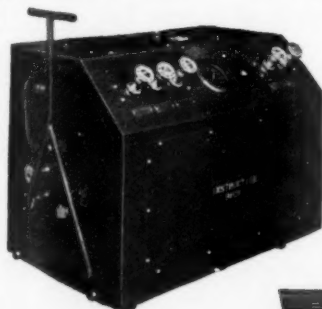
After their ship has been ground-tested with this field-type HydroOILic Test Unit, they can take off with confidence that the fluid power lines to ailerons, rudders, landing gear, wing flaps, propellers, etc. can withstand pressures far greater than will ever be encountered in their flight.

It's just one of the innumerable ground tests our planes undergo today . . . many of which are made with HydroOILic Units.

And such tests will be even more important TOMORROW. When sky ways become "the travel-ways" they will safeguard your flights . . . give you the added peace-of-mind and joy of flying that will play a vital part in making private and commercial aviation universally popular.

In your post-war planning have you considered the possible application of HydroOILics to either your product or your production equipment? The advantages of its fluid power, and the control of that power, have quickly solved the problems of many others.

THE DENISON ENGINEERING CO., 1193 Dublin Rd., Columbus 16, Ohio



An Electric-Motor-Driven Test Stand for Making the Same Tests as the Gasoline-Engine-Powered Stand Pictured in Use.



DENISON

EQUIPMENT in APPLIED

HydroOILics

Give a man a plane he can fly—



When he is an American, and his plane is the product of American genius and mechanical ingenuity, then there's a hot time in store for the Axis. The chances are, too, that there will be Allen-made instruments aboard that plane. Instruments which are dependable under toughest conditions—just like the business machines which bear the R. C. Allen name.



Take Good Care of Your R. C. Allen Machine
Good business machines are precious, these days. That is why you should have yours serviced regularly by an R. C. Allen factory expert. Get his name from your classified 'phone directory or write us.

R.C. Allen Business Machines

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10-Key Calculators • Portable and Standard Adding Machines • Bookkeeping Machines • Cash Registers • Statement Machines • All-Purpose Office Machines, Electric or Hand-Operated

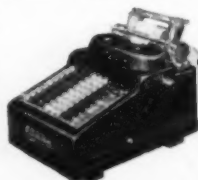
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THE R. C. ALLEN 3699

CAPACITY \$10,000,000.00

9 Columns Direct Subtraction Hand Operated

A fast and accurate adding machine incorporating such Allen safety factors as Visible Dials, Automatic Clear Signal and Red Print Subtraction. This model may be purchased on WPB 1688 or government orders. 8 and 10 column models, hand operated, are also available.



Doling Out Men

Pittsburgh makes its last stand against 48-hour week with WMC-supervised plan to ration male workers to essential jobs.

Like many other stringent labor areas trying to avert the mandatory 48-hour work-week, the Pittsburgh district on Mar. 1 starts rationing its male workers on a priority basis.

• **Three Categories**—Patterned after the Newark (N. J.) quota system, the Pittsburgh manpower budget plan, supervised by the War Manpower Commission, classifies employers into three categories.

In Group 1 are those employers handling direct contracts with the Army, Navy, or Maritime Commission. They will be permitted to hire men for both replacement and expansion needs. Group 2 employers—those whose activities are designated as essential or locally needed—will be permitted to hire men for replacement only.

• **Their Field Restricted**—Employers in Group 3 are those whose activities are not designated either as essential or as locally needed. The number of their employees has been frozen as of Feb. 1. Permitted to hire only through the United States Employment Service, Group 3 employers can employ only women, part-time workers available for no more than 30 hours of work in any seven-day period, boys under 18, veterans of the present war, and I-A draft registrants awaiting induction.

Although having the right to do private hiring in accordance with rules governing releases under the employment stabilization plan, employers in Groups 1 and 2 will be restricted by "employment ceilings" to be set by a newly created manpower priorities committee. Male hiring quotas will be issued by the committee in 60-day cycles according to the needs of the employer.

• **May Hire Women**—Hiring of women remains unrestricted except that those in essential activities cannot shift jobs without releases.

LOWELL JOB OUTLOOK

Although the regional office of the War Manpower Commission is still hoping to snare some of the workers in Lowell, Mass., who were freed by the closing of two big ordnance shops, for essential war jobs elsewhere in the area, Lowell industries are confident that they will be able to hold onto their reservoir of labor.

Jobs for all by summer are promised

as the result of the opening of new factories, and the promise was given last week, as the United States Rubber Co. plant, scheduled to employ 1,500 workers, began to hire a few casual workers, and as it was announced that General Electric also expects to employ 1,500 after Apr. 1 when it completes the conversion of one of its activated ordnance plants to the production of weapons for Army Ordnance Division. G. E. already has one plant employing 400, expected to increase to 900 or 1,000 by midsummer.

Whatever optimism was generated in Lowell, however, by Business Week report (BW—Feb. 5 '44, p. 22) of a Johns-Manville plant was short-lived when it was pointed out that the plant was advertising for workers at a new plant but the existing J-M plant at North Billerica, 15 minutes by train from Lowell.

SIX STUDY STEEL PAY

An extraordinary six-man panel has been appointed by the National Labor Board in the steel wage case, covering the entire industry. The board departed from its usual three-man panel because of the size of the case—involved more than 500 companies and issues, including the union demand for a 17¢-an-hour wage increase above



ANYTIME WORKERS

Considerable British war production is turned out on a piecework basis by housewives and office workers who labor only part-time. For example, at one small aircraft battery plant in London's West End, employees can stop in anytime for a few hours' work. On the plant's payroll are such prominent persons as Lady Arthur Grosvenor (above) and some 300 clerical or professional workers who are exempt from the national service laws.

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1944



STAR SPANGLED BANNERS . . .

These are the flags of freedom! You see them everywhere in the Gulf South...on village streets, along busy city thoroughfares, down country lanes. There are millions of stars in these flags... some of them already turned from blue to gold. They tell the grim, brave story of America's struggle for Victory. They are the inspiration that turned the broad resources and industrial might of the Gulf South into a vast flood of materiel of war. When Victory comes this same Gulf South will welcome back its sons to the opportunities of a mighty industrial region where they can build and enjoy the freedoms they are fighting so well to preserve.

THE

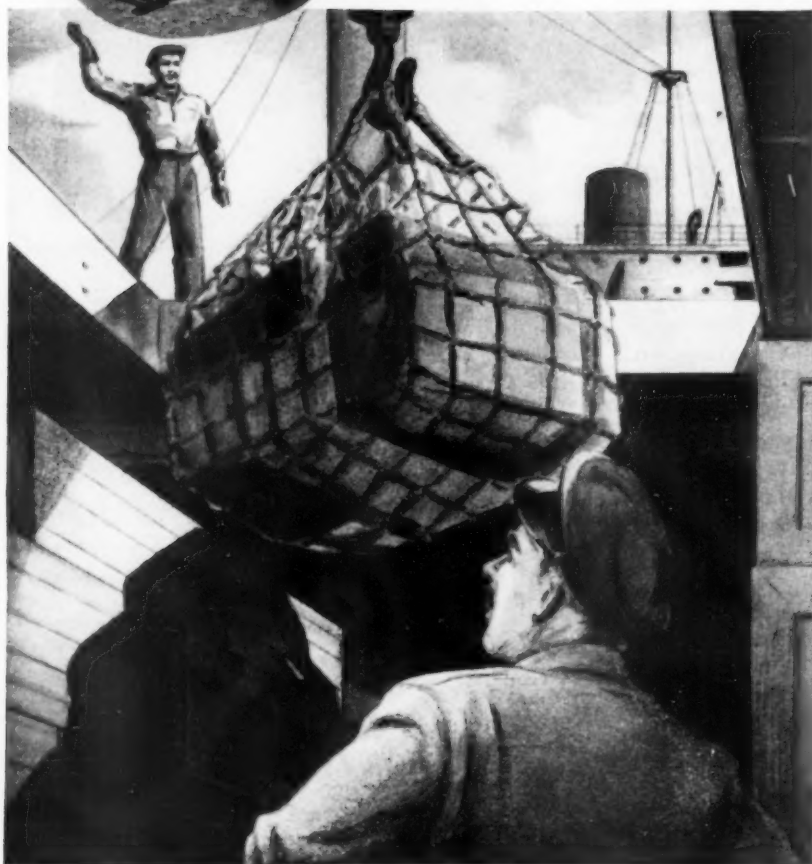
Gulf South

ITS RESOURCES, ITS MAN-
POWER, ITS PRODUCTION ARE
DEDICATED TO VICTORY



UNITED GAS PIPE LINE COMPANY: A Natural Gas transmission company dedicated to serve wartime fuel requirements throughout the Gulf South. FOR TEXAS - Mail received at Beaumont, Dallas, Fort Worth, Houston, Longview, San Antonio and Wichita Falls. For Louisiana - Mail received at Baton Rouge, Lake Charles, Monroe, New Orleans and Shreveport. For Mississippi, Alabama and Florida - Mail received at Jackson, Mississippi. Copr. - 1944 United Gas Pipe Line Co.

Bundles for Britain!



LEBANON



Stainless and Special Alloy
STEEL CASTINGS

FAR sighted industries plan for the day when "bundles for Britain" will no longer mean contributions of clothing. When the guns of the British fleet salute the victory, they will signal the opening of huge markets for "bundles" of American products in London...Liverpool...Manchester...Leeds.

Already, the Lebanon Steel Foundry is producing centrifugal castings. And Lebanon high alloy furnaces (see photo) will be prepared to meet the exacting demands of world reconstruction... *in which American business will be expected to take the lead.*

In the days ahead, management men will need supply sources with pioneering vision. You'll find it at Lebanon.

Men still march on to war... but time, too, is marching on. The right moment to consider your post-war casting needs is *already here!*

Lebanon Steel Foundry, Lebanon, Penna.



ORIGINAL AMERICAN LICENSEE
GEORGE FISCHER (SWISS CHAMOTTE) METHOD

Little Steel formula (BW—Jan. 13, p83).

The panel is made up as follows:

For the public: David L. Cole, past member of the New York Regional Labor Board, and Nathan P. Feinsinger, director of NWLB's Disputes Division.

For industry: Hugh Morrow, president of Sloss-Sheffield Steel & Iron Co., Birmingham, Ala., and Edwin D. Bess, president of the Vanadium Corporation.

For labor: John Despot, San Francisco (Calif.) international representative of C.I.O.'s United Steelworkers on the Pacific Coast, and Stephen Levitzky, Pittsburgh, international representative of the United Steelworkers.

Local Prevails

Rebellion of boilermakers' chief against court supervision of Portland election shatters the peace following Ray's ouster.

Members of A.F.L. Boilermakers Local 72 in Portland, Ore., are ready to tear up their peace treaty with the international union in Kansas City (BW—Feb. 12 '44, p98).

• **Without Supervision**—They discovered last week that the new international president, Charles J. MacGowan, expects to conduct the impending election of local officers without supervision by the state court which put the wealthy local in receivership.

Not only the membership turned thumbs down on MacGowan's scheme, but Circuit Judge Alfred P. Dobson also vetoed it. Dobson asserted that the receiver he appointed, Oscar Furuset, will conduct the election scheduled for Mar. 6 through Mar. 8 in the presence of six prominent citizens appointed by the court as observers.

• **Will Hold Funds**—MacGowan protested that the international could not "submit to the stigma of a court-held election," and he threatened, if the court carries out its intention, to withhold from Local 72 the \$344,081 cash and \$500,000 war bonds which the local deposited with the international for safe-keeping when internal bickering first gripped the local a year ago.

Furuset plans to go ahead with the election. Then when new officers are installed, it will be up to them to sue the international in a federal court for the impounded funds and bonds.

• **Ray Trouble**—Local 72's troubles sprouted from the iron rule of Tommy Ray who, as secretary-treasurer, dominated the local for years but was dethroned by the court in response to an appeal from the rank and file.

THE WAR AND BUSINESS ABROAD

BUSINESS WEEK
FEBRUARY 26, 1944



The spectacular success of the smashing U. S. aerial attack on Japan's Truk Island base surprised even the Navy. Earlier predictions that Ponape would fall into U. S. hands before the end of March, and Truk by July, are now being revised forward.

More important, the victory provides fresh evidence that the war in the Far East will be fought mainly by the Navy and Air Forces, and that it is not likely to drag on for more than a year after the collapse of Germany.

Actually, optimism is based more on production statistics than recent victories.

The U. S. naval building program now turns out a fleet the size of Japan's entire navy every eight months. As soon as Germany is knocked out, Britain and the U. S. can turn into the Pacific a fleet more than five times the size of Nippon's.

Add to this 50,000,000 tons of supply ships which the United Nations will push into the Pacific, and planes—an increasing number of them long-range bombers—and you have the background for Washington's mounting optimism.

In Europe, British officials are showing unexpected concern over recent Nazi air raids. Actually, damage has not been great, and there is no fear that the Germans can retaliate with bombing raids comparable to those that have hit Berlin.

Dread of London is that Hitler—when he sees the invasion getting under way—will resort to germ warfare. (It's more feared than gas.) Present raids show that a few planes can pretty easily sneak through Britain's formidable defenses. One plane can carry enough germs to start an epidemic.

It may be only part of a new war-of-nerves campaign, but the Germans are allowing it to leak out through neutral countries that they are carrying on extensive experiments with anthrax—dread germs for which no sure antidote is known once they get into the bloodstream.

Inevitable retaliation to Nazi germ warfare would be the use of gas over German cities. Huge stocks are available in Britain for any emergency.

Don't be surprised if there is a further delay in recognizing the French Committee of National Liberation as the official French government.

The committee has been given strong hints that it will be officially acknowledged when France is invaded, but U. S. and British military authorities meanwhile want to keep as strong control over the French army as they can, and recognition of the committee as a government might endanger that control.

Formally, the decision is up to President Roosevelt, but military officials are his chief advisers on this matter. The State Dept. is completely out of the picture, though it is kept informed of day-to-day developments.

Goebbels is still fighting the United Nations on the Italian front.

It is pretty well established now that the Germans are maintaining a big enough flow of food to the Italian people just behind their line to make sure that they eat better in the mass than those in the Allied area.

However, the Germans are letting Rome go hungry, because the city

THE WAR AND BUSINESS ABROAD (Continued)

BUSINESS WEEK

FEBRUARY 26, 1944

would make too big a drain on their foodstuffs, and they reputedly have stripped the city of practically its entire stock of textiles and shipped them to Germany. These actions probably indicate that they do not expect to hold Rome much longer.

Behind the pretense of giving workers a share in the management of various businesses, the Nazis have decreed the nationalization of numerous Italian industries. But the crafty Italians see in this belated move in their behalf a trap to induce them, in the name of socialism, to work for the Nazis.

•
Concrete plans to encourage foreign trade as a means of avoiding a war-to-peace slump are in the works.

Though the Russians are stalling the international monetary conference by their refusal to cooperate until the second front is opened, in preliminary discussions they show more willingness than Britain to back a stabilization program based on gold. **Moscow's prewar gold hoard was estimated to be second only to the U. S.** (BW—Mar. 13'37, p15), and it was augmented by the shipment of \$500,000,000 of Spanish gold before the defeat of the Loyalist government.

•
Meanwhile, **discussions are continuing in Washington over the possibility of providing the Soviet Union with long-term credits to cover the cost of huge heavy equipment orders** likely to be placed in the U. S. Probable amount of these credits is less than \$2,500,000,000, though the Russians are asking for twice that figure.

Hitch, so far, is mainly Washington's inability to promise to take large enough quantities of Soviet raw materials in return payment.

•
Current proposals to boost imports of Soviet pulp wood and woodpulp are not yet taken seriously in Canada, long this country's main supplier. **Not fully realized in Ottawa is how seriously this proposal—and one to bring in certain types of lumber—is being explored in Washington.**

•
The suggestion has even been made that certain newsprint plants in the U. S. which are uneconomic, because they are not near either cheap power or adequate sources of woodpulp, be dismantled and sent to the Murmansk-Archangel region.

•
Don't overlook last week's Washington agreement to buy the exportable surplus of several Dominican Republic food products for distribution in other Caribbean countries where there are shortages.

The deal runs until June 30, 1945, and is part of a vast new program to develop the Caribbean with as much government support as is necessary.

Key agency in the new project is the Anglo-American Caribbean Commission, whose first report, *The Caribbean Islands & the War*, has just been issued by the State Dept.

•
Exporters should note the potential market for equipment being outlined now by the Puerto Rican Development Corp. It is already operating a cement factory, building a glass factory where rum bottles will be made, and planning—as a part of Puerto Rico's new Six-Year Plan—to build and operate a paper mill, a cotton mill, a vegetable oils-and-fats factory, a ceramics plant, four synthetic yeast plants, and a wallboard factory.

BUSINESS ABROAD

Inside the Reich

Allied blows bring new edicts reconcentrating industry, shifting nonessential labor, and speeding up nation's transport.

The barrage of decrees handed down by German war ministries parallels the withering land and air assaults by the Allies.

German industry is being "reconcentrated," and German labor is being "remobilized." Raw materials restrictions are becoming more stringent, and financial controls are being stiffened. Transport is being speeded, diverted, curtailed, and carefully supervised.

• **Retailers Classified**—Concentration is being extended by the creation of supercartels (Reichsvereinigungen) to place more authority in fewer hands (BW—Aug. 28 '43, p. 74) and by the combing out and combining of small, low-efficiency plants.

The "Stalingrad Concentration" began in the fall of 1942 with special emphasis on retailers who were placed in four categories of essentiality:

Class I—Deemed permanently essential are 370,000 food, seed, fuel, agricultural machinery, and other retailers employing several million workers.

Class II—170,000 establishments employing 325,000 workers at retailing clothing, shoes, drugs, and other less essential goods. A percentagewise reduction in outlets and staff was ordered.

Class III—110,000 enterprises, employing 300,000 sellers of books, furniture, tobacco, toys, and other nonessentials. Severe reductions were decreed in this category.

Class IV—Liquidated immediately by the concentration order, included 53,000 shops employing 95,000 workers and self-employed persons in luxury or service lines.

• **300,000 Shifted**—The "Stalingrad Concentration," which also wiped out 500 branch banks in its sweep, released 300,000 workers for war production.

Closed stores receive a 50% compensation from operating retailers and their stocks revert to the government. During the past month, many stores have been reopened to provide goods in bombed areas, and in towns overflowing with raid evacuees. Stocks of goods in small stores are being shifted to replace the damaged stocks of larger outlets.

• **Plants Merged**—In production lines, the transfer of production quotas to high-efficiency operators continues. Of 5,000 brick works, only 1,000 are now operated. Distillers, formerly 11,000 in

number, have been concentrated to 715. Three-quarters of the office furniture producers have been shut down. Of the textile works, 50% have been closed; truck trailers are now made in only 173 of 402 original plants.

• **Fuel Conservation**—Administratively, mergers of industry committees are being speeded.

Forty-nine craftsmen guilds have been reduced to eight and put under the direction of the Chamber of Industry. Seven top industry groups have been eliminated or concentrated. Iron and metals, cotton, silk, and rayon, and rubber and carbon associations, for instance, have been lumped in one super-association.

A new employee, whose employment is now required in all important factories, is a fuel-saving engineer, supplementing the full-time steel-saving engineer ordered earlier into all metalworking plants.

• **Savings in Metals**—German economic journals, boasting of achievements in this line, claim that 90% of the prewar use of metal in electro-engineering has been replaced by use of pottery; that 50% of the copper formerly consumed is now replaced by aluminum; that the lead content of cables is down 50%; that mica is easily replaced by the use of glass-silk.

Although prices and living costs hold steady, fear of inflation has caused a



Although the future of foreign air transport is still in the Washington-London diplomatic stratosphere, U.S. lines are spreading their wings with an eye to postwar operations abroad.

This month the Mexican government granted permission to a new corporation, Aerovias Braniff, to operate 2,643 miles of air route in Mexico (map). Ownership of Aerovias Braniff will be transferred to Braniff Airways as soon as permission is granted by the Civil Aeronautics Board.

The new line is envisaged as an extension of Braniff's U.S. lines from Chicago and Denver, and will com-

pete with Pan American Airways and American Airlines and their Mexican companies, for traffic to Mexico City.

If all operation permit requests are granted, a knockdown-drag-out battle for Mexican traffic can be expected after the war: Eastern Airlines, which now stops at Brownsville, Tex., and Chicago & Southern Airlines, which stops at Houston, want extensions to Mexico; and the United Air Lines, with controlling stock interest in the Mexican LAMSA line, will make connections from its east-west United States routes to tie in with LAMSA at Nogales and El Paso.

rise in corporate taxes and has started agitation for higher personal taxes. A new excess-profits tax reduces the exemption limit from 150% to 120% of a prewar base year and sets an absolute exemption limit of about \$7,500 instead of \$10,000.

• **Transport Shakeup**—Companies seeking to dodge the dividend limitation of 6% of capitalization uniformly have altered their capital structures: 124 out of 454 companies listed on the Berlin Stock Exchange have upped their capitalization a total of \$1,440,000,000.

Transport is being moved from land to water; load limits are being raised. Internal movements of goods are restricted to prevent crosshauls, and compulsory conversion of vehicles from gasoline and oil to wood or charcoal has been extended.

Only military trucks are exempt from conversion, and 2,000 firms instead of 600 are making wood-burning gas generators. Subsidies, ranging from \$200 for cars to \$720 for heavy farm tractors, are being granted to speed up conversion.

• **Morale Unshaken**—A recent decree, covering southwest Germany, shifts all bulk shipments of nonperishable goods to river and canal boats, and river transport capacity is now 6,000,000 tons, compared with the railroads' 10,000,000 tons.

But, despite the increasing rigors of economic existence, no indication of either falling confidence, or imminent breakdown, appears in any of the highly factual and critical financial and economic journals published in the Reich.

CANADA

Plants in Exile

Canada plans financial assistance for industries set up by central Europe refugees as aid in Dominion's war effort.

OTTAWA—One reason Canada is launching in Parliament this year a program to assist and encourage small and medium-sized industries is the impressive record of "refugee" plants in Dominion war production.

• **Almost All Succeed**—Scattered through Canadian war industry are many plants established just before the war and during the war, by refugees from occupied Europe.

Almost all of these firms have been successful. Many have made notable contributions to essential war output. Some have established new lines of manufacturing and provided specialized equipment not available in Canada in sufficient quantities from outside sources. Because much of their work is being done on acute war needs, the location and exact identity of the plants are still war secrets.

• **Vital Needs Filled**—Most of these plants have been established by refugees from Czechoslovakia, Holland, Poland, and Austria, and it generally is admitted

that some have given lessons to Canadian industrialists in efficiency of plant operation.

A large part of Canadian war requirements in surgical instruments and supplies is now coming from a plant that has been established by refugees from central Europe.

This plant has filled a critical gap in war equipment, as surgical supplies previously were not made in quantity in the Dominion, and neither Britain nor the United States could handle Canadian orders.

• **Varied Products**—Another concern has largely freed Canada from dependence on the U.S. for optical glass.

A considerable part of Canada's industrial diamonds requirements is being filled by a plant in Toronto established during the war and headed and manned by refugees from Holland.

Canadian Wooden Aircraft, Ltd., a company started during the war by Polish refugees, is providing the Canadian aircraft industry with large quantities of finely fabricated wood parts for planes.

• **Shoes by Bata**—The Bata people from Czechoslovakia, who set up shoe manufacturing in Ontario just before the war, not only have been turning out shoes for Canadian forces but also have been making aircraft parts and other war equipment.

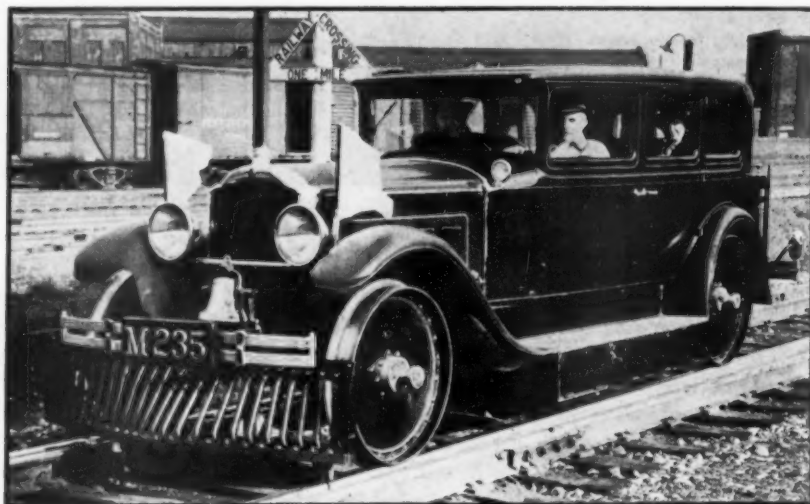
Potentially one of the most important of the new refugee enterprises is engaged in production of molded plywood in British Columbia. The newcomers brought considerable capital with them and have enlisted additional financial support from Canadian sources.

• **Grease From Wool**—Wool Combing Corp. was established at Acton, Ont., by Polish refugees. In addition to making a highly useful contribution to the established Canadian textile industry, it has developed the conservation of wool grease, not hitherto attempted in Canada.

Heskey Flax Products, Ltd., at Seaford, Ont., headed by refugees from Czechoslovakia, is now one of the largest flax-growing and processing plants in the world.

With its own capital, and with many trained flax workers from central Europe, it has taken over 2,500 acres of land—said to be the largest acreage in a single flax-growing unit in the United States or the British Empire. It is operating processing plants with ultramodern machinery.

• **Capital Assistance**—Large numbers of refugees who came to Canada just before the war were interned as citizens of



RAIL CAR DELUXE

Inspecting the 2,000 miles of track in his bailiwick is just like touring for N. R. Crump, Ontario superintendent of the Canadian Pacific Ry. To do his

superintending, he merely jumps into his 1929 seven-passenger limousine and drives along the "iron pike." The rail car, fitted with flanged wheels, cowcatcher, and bell, operates under regular train orders and regulations.

An Assembly Line 70 Miles Long ... Through Farms and Over Rivers **TRUCK-TRAILERS ARE THE CONVEYORS!**



The Vought "Corsair", the Navy's newest fighter and the fastest of its type in the world, is powered with a Pratt & Whitney Aircraft 2,000 horsepower engine.

WHEN YOU THINK of the production of Pratt & Whitney Aircraft engines . . . to power Corsairs, Thunderbolts, Wildcats, Hellcats and Liberators . . . you think of a pretty big factory—but not, probably, of one with seventy miles of assembly lines running between four cities.

That's literally the case, though. As Pratt & Whitney production expanded to meet war needs, whole departments were extracted from the home plant and re-established in three other cities, each twenty miles or more away. These remote departments produce parts which move over the road to the assembly plant.

And Truck-Trailers . . . a fleet of six Fruehaufs . . . are the "conveyors." 24-hours-a-day, 7-days-a-week, they keep material flowing steadily . . . as the production schedule calls for it. Load-weights range up to 16 tons . . . average about 10 tons . . . and all but the heaviest are pulled with 2½-ton trucks.

Pratt & Whitney utilizes Trailer efficiency and economy still further, though. The Trailers are "shuttled." Only three trucks are needed to pull the six Trailers, for while one Trailer is being loaded or unloaded, the truck that brought it is en route to another plant with another Trailer. Thus each truck and driver actually do the work of two.

This is another good example of the adaptability of Trailers to difficult, essential, specialized hauling jobs.



MOTOR TRANSPORT WILL GET YOUR JOB DONE! If you aren't using truck transportation, have you ever challenged your shipping costs and over-all efficiency with the job that professional haulers can do for you? The fact that the for-hire motor transport industry has grown so rapidly is indicative of what others think of its services. Why not at least get the facts and stack them up against your own records?

World's Largest Builders of Truck-Trailers

FRUEHAUF TRAILER COMPANY • DETROIT, MICH.

Service in All Principal Cities

Invest
in Victory
**BUY WAR
BONDS**



FRUEHAUF TRAILERS

"ENGINEERED TRANSPORTATION"
REG. U. S. PAT. OFF.





Five words!

"Lifts more, easier and faster"

That is the story of 'Budgit' Chain Blocks—of astonishing results produced by new design. They are equipped throughout with anti-friction bearings. The complete mechanism is totally enclosed in sealed construction, and operates in grease which cannot escape nor become contaminated by dust, dirt or grime from the outside. Even the hand wheel is protected.

An important feature is the totally enclosed automatic brake which holds the load and prevents it from descending except when the worker pulls on the operating chain in the lowering direction.

In this new design, dead weight has been eliminated without sacrificing strength so that a two-ton 'Budgit' Chain Block weighs only 81 lbs. This is a surprising new standard in portability. The ¼-ton sizes weigh 48 lbs. The simple design, stampings, and new alloys make this possible.

So perfectly distributed is the weight, they hang in balance with or without loads.

Another significant improvement is the roller type load chain that does not stiffen, stretch nor bind. It assures smoother lifting.

'Budgit' Chain Blocks are built to lift up to ¼, ½, and 2 tons and prices start at \$59.50 list. Send for Bulletin No. 357.



'BUDGIT'
Chain Blocks

MANNING, MAXWELL & MOORE, INC.
MUSKEGON, MICHIGAN

Builders of 'Show-Box' Cranes, 'Budgit' and 'Load Lifter' Hoists and other lifting specialties. Makers of Ashcroft Gauges, Hancock Valves, Consolidated Safety and Relief Valves and 'American' Industrial Instruments.

enemy alien countries. Many now have been withdrawn from internment camps and have gone to work in factories making aircraft equipment and other specialized war supplies where their skills can be utilized.

It is largely because Ottawa war production chiefs have been impressed by the wartime achievements of the refugee companies that the Mackenzie King government plans to establish a Canadian Industrial Bank, as a branch of the Bank of Canada, to provide capital assistance for new industries.

• **Expanded Exports**—Because some of the lines of production started just before and during the war are new, not only to Canada but to North America, Canadian authorities believe concerns of this kind will be able to make important contributions to Canadian postwar export trade.

In Ottawa, it is believed that the decision to provide capital assistance was reached after it was learned that some refugees were faced with the choice of expanding plants already started in a small way in Canada or crossing the border to the United States where financing would be easier.

Through its proposed new industrial bank, Ottawa aims to keep them here. Some of their products are specially suitable for export to Latin America and Empire destinations.



VERSATILE SHOEMAKER

Typical of the refugee industries that fled Europe one jump ahead of the Nazi war machine (BW—Jul.29'39, p36) and that now produce Allied war materials in the United States and Canada is Czechoslovakia's Bata Shoe

Boom in Mining

Canadian prospectors far northwest claim discovery of new deposits of gold, zinc, tin, and tungsten.

TORONTO—Despite labor shortages, preliminary steps are being taken now toward the postwar development of the mining industry in Canada's far northwest.

• **New Routes Help**—Made more accessible by the building of three defense transport routes (the Alaska highway, the Alaska airway, and the Canadian highway), northwest Canada is now dotted with government and private prospecting parties and Trans-Canada and Canadian Pacific airlines are talking of instituting new routes into the region.

While gold has been the big drawing card for prospectors to Canada's Yukon, British Columbia, and Northwest Territories in the past, wartime prospecting has turned up other valuable mineral deposits for immediate and postwar development.

• **Area Opens Up**—Dr. Charles Cammell, deputy minister of mines and resources at Ottawa, and a veteran geolo-

Co. which came to America to produce footwear (BW—Jan.6'40,p18) but stayed to make armaments. The products of Bata's plant at Batavia, Ont., include fire control instruments, aircraft hydraulic systems, and machine gun mounts (above) in addition to shoes for the Canadian forces.

and prospector, attributes the 1943
 arch boom to improved transporta-
 facilities centering mainly along
 adjacent to the Alaska highway,
 extending as far as Mayo and Klon-
 districts, and even to Coppermine,
 at Bear Lake, and Yellowknife areas.
 Some 40 prospectors were working
 in the Alaska highway and its
 branches last summer, representing
 Consolidated Mining & Smelting Co.,
 Hudson Bay Mining & Smelting
 Ltd.; American Metals Co., Ltd.;
 some Mines, Ltd., and other com-
 panies. Areas within 50 miles of the
 highway were located by airplane and
 are prospected as thoroughly as time
 permitted.

New Claims Filed—The prospecting
 started in the recording of claims cov-
 ering discoveries of ores containing tin
 in the Mayo district of the Yukon; lead,
 and tungsten in the Norman Wells
 area; and in the Alaska highway
 area, molybdenite, fluorite, tungsten-
 ing scheelite, and copper ores.
 In the area east of the Alaska high-
 way, near Great Bear and Great Slave
 lakes, tin, tantalum, and other alloy-
 minerals were found by government
 geologists. These finds, in addition to
 the silver, gold, and radium-bearing
 blends of the area, may prove at-
 tractive for future prospecting.

LABOR CODE ENACTED

OTTAWA—Last week the Canadian
 government brought into the open and
 enacted into law, by issuing an Order
 in Council under the War Measures
 Act, the new labor code (BW-Jan.
 14, p.118).

Submission of the code to industry
 and labor scrutiny brought recommen-
 dations for about 50 changes, but only a
 few of minor importance have been
 made.

Where the original draft proposed to
 make it mandatory for labor unions and
 employer organizations to file details of
 their finances and copies of their consti-
 tutions, such material now need be
 made available only to members of the
 respective organizations. The law leaves
 the Labor Relations Board the au-
 thority to compel filing of statements.

Another change clarifies the ban on
 use of coercion or intimidation to solicit
 union membership by making it possible
 for collective bargaining agreements to
 limit the scope of solicitations.

Canadian Congress of Labor and Cana-
 dian and Labor Congress heads have
 given their blessing to the code, and
 spokesmen for industrial groups approve
 the new measure. Ontario's minister of
 labor has already submitted legislation
 to bring all provincial industry under the
 new federal code.

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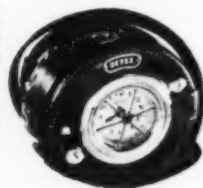


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THE MARKETS

(FINANCE SECTION—PAGE 94)

Last week Wall Street saw one of the prominent rail stock price indexes followed closely by its chart readers experience little difficulty in penetrating through last summer's 1942-1943 bull market high and move up to the best level since the fall of 1937 (when the index was in the last stages of a rapid 55% drop from the peak it had reached earlier during the 1935-37 stock market boom).

• **Industrials Gain**—The Street last week enjoyed, too, the unusual experience (for 1944) of seeing the industrial shares shake off their lethargy of the last month or so and join with the rail stocks in the staging of simultaneous rallies during the course of two daily trading sessions. Also, it saw the trading volume on one of these days rise above the million-share mark, an event witnessed only once before this year.

Nevertheless, last week's million-share day, as well as the unusual sight of two close-together rallies by the industrial group, proved pretty much of a flop in immediately generating any increase in the speculative interest in stocks generally.

• **Reaction Awaited**—Although reaction to the President's veto of the tax bill may cause a decided change, industrial shares generally have turned in a rather unimpressive performance. An exception is some fair price strength in some of the aviation shares because of a feeling of some analysts that the Baruch report forecasts a better postwar position. Some of the rails have retreated somewhat from their highs of last week as a result of subsequent sales for profit-taking.

The stock market on Wednesday this week did finally start to move higher levels as more news flowed concerning the seriousness of the President's break with Congress on the tax bill. However, while the Street, according to reports, has not yet reached any definite conclusions regarding the ultimate effect on prices of this factor, the more hesitantly inclined aren't hesitant in stating that it has not materially changed the intermediate outlook for stocks in general.

• **Apt to Be Vulnerable**—In fact, professional opinion in the financial district, although fairly evenly divided, still leans to the belief that stocks, and they do not exclude the rails, are definitely within selling zone now and quite apt to prove vulnerable price-wise in the event of adverse news.

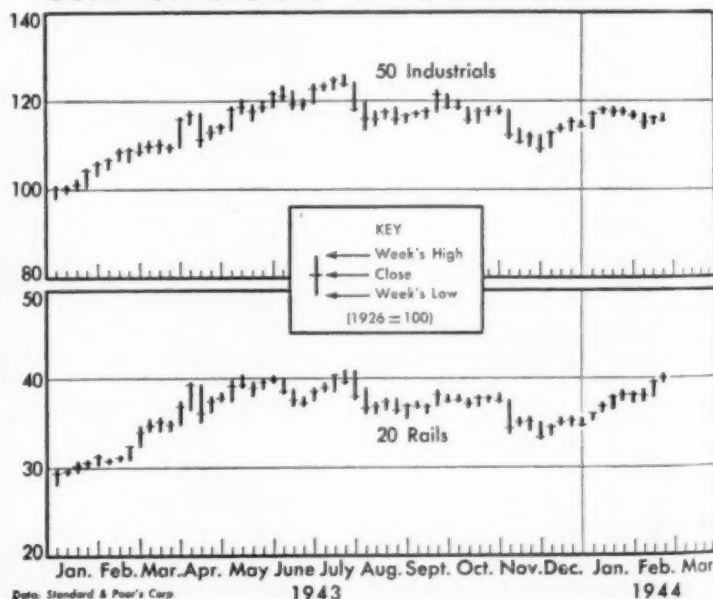
Few in this group actually think the market is apt to decline drastically until this occurs. Also, they admit that such a break may be some days or even weeks away.

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial ...	115.5	116.4	117.4	108.1
Railroad ...	40.0	39.7	38.1	32.1
Utility ...	50.3	50.3	50.3	42.1
Bonds				
Industrial ...	119.1	119.6	119.6	118.1
Railroad ...	106.0	106.0	104.6	92.1
Utility ...	115.8	116.0	115.5	111.1
U. S. Govt. ...	112.7	112.4	112.1	108.1

Data: Standard & Poor's Corp. except for government bonds which are from the Federal Reserve Bank of New York.

COMMON STOCKS—A WEEKLY RECORD



THE TRADING POST

vs. Science

Letter from **Frank Henry Selden** of
Lys Lane, Pa.:

I add one item to Mr. Killheffer's
comment (BW—Jan. 29 '44, p. 123). His state-
ment on the international situation lead to
a basic problem. How is England or any
country to determine what to make
export: The answer to this question re-
quires a recognition of two distinct types of
industry, the static imitative crafts type and
the progressive scientific type. The former
is common throughout most of the world.
The latter is the basis of much of our indus-
try and to a less extent the basis of English
industry and of a few other countries, as
shown by their man-hour standards.

When this is understood, we recognize
the more highly developed the industry
on the scientific basis, the greater the tend-
ency to specialization, to stop imitating, and
to develop products that each plant or
region are best adapted to produce. This
explains the cause of these serious con-
ditions in world trade. There is too much
imitation by some countries of the
products of other countries.

When this is understood, the answer to
various problems of exports and tariffs
is obvious. What is needed is not to admit
into some country to please another
country that needs the market but to help
countries to rise to the higher level of
scientific industry. This is a comparatively
easy and inexpensive undertaking.

The difficulty is to get our leaders, who
are not to understand the difference be-
tween crafts and scientific industry, to recog-
nize the situation and take up the task. The
world problem is not markets or tariffs
but how to place world industries upon the
scientific basis so that each country
develop industries according to its re-
sources and intellectual type and thus pro-
duce complementary products that others
want, and need products from others
in exchange.

Soldier on Renegotiation

The following comments on renegoti-
ation owe their special interest to the
fact that they are offered by a soldier,
C. L. Erickson, now stationed at
Camp Wolters, Tex.

Upon entering the service I felt mentally
prepared to know that my wife and child
would be partially taken care of by Govern-
ment allotment of \$80 for dependency. But
more, I was counting upon dividends
on corporate stocks to pay for the monthly
rent, food, and clothing bills which would
continue unabated. Regular \$1 annual divi-
dends per share of the W. B. Co.—a con-
stant earner for years—would provide those
needed funds. Besides, this corporation was
doing a wonderful job of contributing to
the winning of the war, as exemplified by its
Navy "E".

Despite severe 1942 income taxes, this
company was able to maintain its net earn-
ings on a level equal to peacetimes. Then
came renegotiation through the Price Ad-
justment Board of the War Department to
pare 1942 net earnings from a satisfactory
figure of \$1,752,000 to the infinitesimal
adjusted figure of \$142,000. While I do
not have figures available as to the admitted
assets or net sales of the company, I know
that both run sufficiently high to justify the
original net earnings.

As a result of this confiscation of earnings,
the Sept '43 quarterly dividend of \$.25 was
passed, and my family's assurance of an
American standard of living is being seri-
ously jeopardized during the time I devote
to the defense of my country's safety,
wealth, and pattern of living. If our con-
cept of life and economics is sufficiently
correct for us to fight to preserve it, then let
us see that it is not destroyed from forces
within.

While the farmer today reaps high re-
ceipts per bushel for his crops, and the
laborer high wages per hour for his skill,
the investor finds himself devoid of rewards
which he has earned and to which he is
fully entitled.

The time has come, I believe, when capi-
tal should make a more vigorous stand for
its rights, defending to the full that funda-
mental concept of a fair and just return on
its investment, risk, efforts, and results. And
the day is here when the Government,
through its agencies, should recognize the
rights to a fair profit for every successful
business enterprise, in order that the large
category of citizens known as investors will
be properly protected from the ultimate and
certain result of an ailing national economy.

Better Read It Over!

A warning to those who speak in
public from manuscript is offered by
the recent experience of one man in
Philadelphia. He was reading a pre-
pared address to an industrial conven-
tion. Along toward the end he swung
into his peroration something in this
wise:

"The American business man is tired.
He has worked long and diligently in
the war effort and in the difficult times
which preceded it, and he is weary. He
is physically tired and mentally tired.
But he isn't nearly as tired as the girls
who have to type all this cyewash!"

Then came a long, tense pause while
a delighted audience came to its senses
and began to yelp its appreciation. The
speaker stared unbelieving at his script
as though the typewritten characters had
taken life and were wriggling over the
paper.

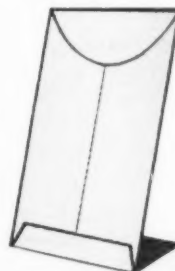
"Why," he blurted, when he found
his voice, "I never wrote anything like
that!"
W.C.



HIGH EMPLOYEE MORALE



COMES FROM GOOD MANAGEMENT

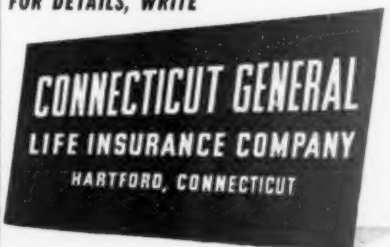


THE "PROTECTED PAY ENVELOPE" HELPS MANAGEMENT ACHIEVE THIS GOAL . . .

. . . by providing a definite
working plan of financial
security for employees in case
of accident, sickness, death
or retirement . . . and by
fostering, through such a plan,
closer employer-employee
understanding and mutual
trust.

* The Protected Pay Envelope provides, singly
or in combination, Group Life, Accident & Sickness
Insurance, Hospital Expense benefits, and a
Retirement income for employees.

FOR DETAILS, WRITE



THE TREND

PRIORITIES IN RECONVERSION

In recent months, the War Production Board has taken steps to release some raw materials for the production of substantial quantities of such items as electric irons and washtubs. Also, conservation orders on a number of civilian products have been relaxed or removed. Other restrictions on selected products can be expected to be lifted gradually in coming months. There have been many official warnings that these actions should not be construed as indicating an immediate and widespread return to civilian production for American industry.

• **Actually, even for the small quantities and few items for which new or enlarged production quotas have been announced, it will be some months before these goods are produced.** WPB is looking ahead now to summer, when increasing amounts of raw materials will be available, rather than to the present, when there is very little slack, except in highly selective fields.

While there have been large numbers of cancellations of war contracts, these represent only a very small portion of those outstanding. Further declines in production of some items are being offset largely by increases elsewhere. The over-all war production program is not likely to show any measurable declines until the second half of the year. If the war in Europe continues, the drop in war production in the final six months of 1944 will perhaps not exceed 10% from the first half.

Yet even as total war production hits its peak and declines can be seen ahead, the supplies of some raw materials are still increasing. This results in some surpluses, as in the case of aluminum. For many materials, surpluses are expected to appear in the spring and summer months. Advance plans are necessary if these excess supplies are not to lie idle.

• **As materials become available for civilian production, it is desirable that they be used—assuming that there will be the available manpower and facilities for their fabrication.** It is obvious, however, that in the release of materials for civilian production, great care will have to be exercised to avoid interference with continued war production. Unless this can be assured, the Army and the Navy will properly resist removing the bans from civilian output. If WPB can provide the procurement agencies with a schedule for lifting restrictions on civilian production, and if these agencies will take this schedule into consideration in the cancellation of contracts, some of the difficulties may be avoided, or at least modified.

As WPB is confronted with surplus materials, it will be faced with a problem of establishing some order of priority for their use. Obviously, restrictions on the more

essential consumer items should be lifted in preference to the less essential items. The Office of Civilian Requirements has been engaged in a survey of consumer needs to determine their most pressing demands. Presumably the information thus obtained will be helpful in establishing the priority of consumer products. But what criteria of essentiality are to be adopted? Should release of consumer needs be the sole guide?

• **There are nonwar demands other than consumer goods which call for early consideration.** For instance, substantial quantities of machine tools and other equipment and of dies, jigs, and fixtures may be essential to the reconversion process. It may be desirable to permit the immediate production of these items in order that reconversion can be speeded up when large-scale cancellations of war contracts get under way.

Likewise, there is a growing critical need for commercial trucks and other vehicles to replace those which are rapidly being worn out. Many public utilities are in need of new equipment to maintain effective operation. Many industries have been unable to replace worn-out equipment during the war because of WPB limitations on orders. In other industrial areas, especially the trade and service fields, expansions have been held up because of wartime restrictions.

At what stage in the reconversion process such industrial demands should begin to be met is a matter of prime importance. Certainly industry will not propose that its needs be given first consideration over all consumer goods. Yet it will be to the advantage of all consumers if early preference is given to the production of those producers' goods which will expedite the reconversion process. A small quantity of materials allocated for reconversion equipment now may result in much shorter intervals of work stoppage during the period of readjustment. In other words, total production of consumer goods over the next two or three years may be much larger if some restraint is now exercised and industrial demands are given adequate consideration in the priority of resumption of nonwar production.

• **Government, labor, and industry will do well to appreciate carefully the relative merits of initiating different types of peacetime production in some order which not only will consider the most pressing consumer demands but will also keep in mind the long-run implications.** The pressures for preference are going to be strong from all quarters. Well-developed plans are the only alternative to piecemeal and makeshift concessions to these pressures.

The Editors of Business Week

Business Week • February 26, 1945

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